THE CULTIVATOR.

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Foreign Correspondence.

MR. MITCHELL'S LETTERS—No. VII.

Irish Peasantry—Culture of Potatoes in Ireland, &c.

London, 19th May, 1845.

LUTHER TUCKER, ESQ.: Dear Sir—Leaping from Jersey to the north-east coast of Ireland we find, in place of the bright green fields and high hedge rows, a succession of wild hills covered with a stinted furze, destitute of fencing and profitless save for pasturage. There are indeed little huts to be seen about their edges, and a meagre cultivation is creeping lazily round their skirts; and between them, here and there, are rich vales, in one of which lies, half-way up the north side of Carlingford bay, the beautiful village of Rosstrevor. The general character of the surface however, on a first approach to the shore, is uninteresting to an agricultural eye. The homes of the laborers are mere huts of mud and stone, possessing none of the rural charms belonging so eminently to those of England, but are slatternly without and filthy within. In fact, the Irish peasant, from my observation, is as peculiar for his want of taste and neatness, as is the English for its possession. I have indeed seen beautiful way-side cottages in Ireland, but not having a beauty that would bear examination in detail, and possessing more charms in the distance than when under the eye. This peculiarity is observable not only in their homes, but in every habit of their out-of-door life. Their implements are left scattered about the fields—their fences are straggling—their clothes ragged, and their habits of labor destitute of all system. Thus the ditcher will work like a madman for an hour—his coat in the ditch, and his hat on the fence, and then will throw his spade upon the ground and run to his cabin for a boiled potatoe, and if he have no line to direct his work, he will be as likely to trench in a circle as in a direct course.

Returning to the neighborhood of Newry, where I landed, I saw scattered about small lots of wheat, but most of the available soil was thrown into ridges for potatoes. The method employed, I found afterwards, to be almost universal throughout Ireland. The land was first plowed, then laid off by stakes or lines into strips of four or five feet wide—an interval of eighteen or twenty inches being left between each. The manure is spread carefully over the wider strips—the tubers (uniformly cut) placed at distances of five inches apart each way, upon the manure; all the soil is then dug from the narrower strips and thrown carefully and lightly over the seed.

As I approached the town, passing for some four or five miles under the high wall of the park of an Irish peer, the country spread out into a more level and richer surface. The houses, thickening into streets, were even more dirty than the scattered ones nearer the sea. The pavements, if indeed any belonged to the streets I first entered, were covered with all manner of filth, and the front of nearly every cabin was adorned with an unctuous pile of manure placed just outside and opposite the door, on which were gallopading, with tangled hair, half naked children of every degree; and I was agreeably surprised amid the general foulness, to see running out of one of the most pretending of the houses a nice pair of Berkshire pigs; and through several side entrances I had passing glimpses of fair looking cows quietly munching at a lock of hay.

It was market day, and the roads were crowded with booths and clumsily made carts, and the women scattered beside the way, with goods of all sorts, from old iron sauce pans to bunches of mint and radishes, were earnest that I should buy a ha'penny's worth—no inconsiderable sale for those whose whole stock was barely worth a shilling. The absence of all cleanliness in street—in shop—in dress—in person—was disgusting. The meats on show were excellent, and so were the vegetables, but cleaner salesmen would have made far less excellent provisions more tempting. Flaming advertisements were posted in every part of the town of the first ships bound for New-York—and I found them scattered throughout Ireland, and not on one occasion only, witnessed the parting of some youth from friends, for a trial of life in the west, and heard, not without emotion, the sighs, and farewells, and screams, in which that excitable nation are prone to indulge.

Immense numbers of cattle and swine are annually shipped from Newry to Liverpool—the steamers bringing over in turn manufactured goods—and not unfrequently, at present, guano and the patent manures. Indeed, I may say, from my observation, that the vaule of manure is more fully appreciated in Ireland than in most parts of England. And though Irish tillage has not yet availed itself of the latest scientific aids, and is slovenly in its operations, though drainage and irrigation are not yet generally adopted, yet have I nowhere in England—in travelling through twelve or fifteen of its principal counties—seen such scrupulous preservation of every substance that will enrich the soil, as in Ireland.

Travelling north and west from Newry, the country improves in richness and beauty. The roads, as they are everywhere in Great Britain, are excellent; the fences not so trimly built or clipped as in England—stiff effective barriers against unruly cattle, and there are glimpses among the hills of the green valleys which nourish the thousands of herds that find their way across the channel. Women are in the field, not scorning the hardest of the labor, and as hard favored and as dirty as the men. The spade does more than half the office of the plow in all the potatoe fields—hence their great crops and the equally great crops of grass that follow. Though it was the 20th of April, when in the north of Ireland, I saw

clover that would have turned a ton to the acre. Their course seemed to be—potatoes on a grass lay—next oats or flax with clover or rye grass—sometimes wheat intervening, or vetch and rye, followed by flax with small grass seeds. From my description of potatoe planting, you will see that the land has the appearance of a great number of high beds; these are plowed lengthwise for seeding; the consequence is—the fields present a succession of rounded barriers, not easily cropped under our method of mowing. They use, however, a short hook in place of a scythe—another reason for the fact notorious with us—that an Irishman is no mower, but a good reaper. The horses seen in the fields are far inferior to English horses in bone and flesh; the same is true of all seen in the curiously constructed Irish cars, and I note here an exception to the generous character of the people—the horses are most cruelly treated. I have nowhere seen so hard beatings given—nowhere seen them so well deserved—nowhere seen them so little cared for.

Large estates are not so frequent along the way as in the neighbor isle, and where existing, are much more scrupulously guarded against encroachments, being surrounded with walls of huge height and thickness.

Not the least attractive features in a day's ride northward, are the bleaching fields of several large flax weaving establishments. Hundreds of acres of green lawn are covered with white linen—the surface of a bright stream seen at intervals between, and the gentleman proprietor's cottage or mansion seated in a group of trees amid it all; in the distance the hills curiously checkered with fresh growing wheat and new tilled lands, and way pasture grounds.

Over three thousand cattle are at the Smithfield fair to-day, and thousands and tens of thousands of slaughtered sheep and swine come up weekly from ever part of the country. Butchers even go to Lancashire to buy. Every hotel is full, and the consumption is immense. Rhubarb, asparagus, new potatoes, radishes, &c., abound in the market. Strawberries, cherries, and peaches, may also be had for money. Cucumbers have also been in the market since the first of April; they are a foot or more long, but no larger round than ordinary. The price varies from 25 cents to $2 each. Greater luxuries are by no means so cheap. Weather continues cold—colder than with you, I doubt not. Lilac and apple trees are just in bloom.

Truly yours,

D. G. MITCHELL.

LETTERS FROM MR. HORSFORD—No. V.

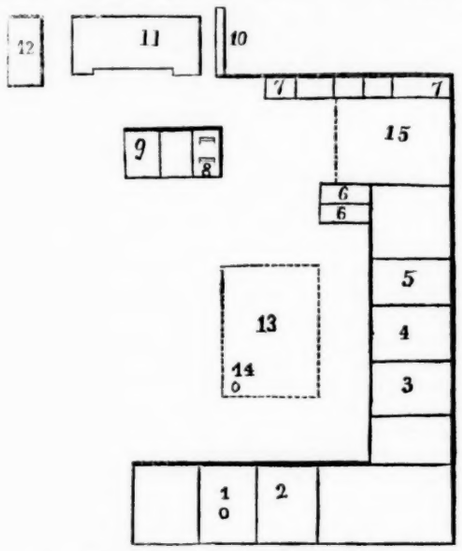
German Farming—Farm Buildings—Stock, Rotation of Crops, &c.

Giessen, March 14, 1845.

L. TUCKER, Esq.—Yesterday I visited, for the first time, in Germany, a—so called—*Econom.** I have some hesitation in the employment of language to explain what I here observe and hear; first, because I may convey incorrect information; and second, because I may do injustice to the general land, in a very small state of which I happen to reside. What is quite true of Livingston county, in New-York, for example, might fail if applied to lands upon the Aroostook or in the Accomack district. And again, it is by no means grateful to hear the United States charged with being a repudiating, duelling, slaveholding nation, as I not unfrequently do. Distance, in lending enchantment to some views, draws a veil of indefiniteness and generalism over others. Englishmen and Europeans generally, know nothing of Mason and Dixon's line, and judging others by myself, a statement of what is observed in Hessia Darmstadt might be thought applicable to each of the remaining thirty-seven Germanic states—an application against which I here caution the reader of my communications.

An *Econom*, claims to be a scientific farmer; claims to employ the best practical methods for making a given number of acres, taking all his wants and relations into consideration, produce the largest amount of money. He has capital enough to take advantage of markets, to some extent, and proceeds upon something of a wholesale system. He has, however, no tenants, all his employè sleeping either in his own residence or in his barns. His daughters are eligible to presentation at the prince's court, and his sons to posts under government. He labors with his sons and his men, and has no stewards or other intermediate agents between himself and those with whom exchange of crops or products are made. Thus much have I concluded from an interview of a couple of hours yesterday, during which an econom conducted me through his suite of barns, folds, &c.

His residence was, earlier, the summer palace of the Prince of Brownfels, and may have an interest to some American readers, from having been the birth place of the heroine Charlotte, in the "Sorrows of Werter." It is beautifully situated at the head of a valley, closed in throughout a distance of nearly a mile, with a varied forest of evergreen, oak and maple. Like all the old houses, it is a frame work of wood, the interstices between the timbers of which are filled in with unburned bricks, and plastered or whitewashed without. The roof is of tile, and all the windows present in the sash the never changing form of the cross. Immediately about the dwelling were some hedges, but over the entire farm, as far as I could see, were no walls of separation, either of hedge, wood or stone. This is usual. The barns, sheep folds, swinery, kennels, ice house, wagon house, &c. surround a quadrangle about two hundred and eighty or three hundred feet in diameter, in the centre of which is a paved basin of about sixty feet by forty, for the reception of manure. The barns were of brick and wood, and roofed like the house. I will number in their order the several apartments and objects that I saw, and the following diagram will give their arrangement:



German Farmery.—(Fig. 69.)

1. A stable for cows, calves and yearlings, each secured by itself to a rack and manger, without intervening partitions. In the centre of the stall is a half hogshead for the preparation of food, which consists of chopped straw, pounded beets, and boiled potatoes. They are kept in the stable throughout the entire year. The calves have all the milk for the first six weeks, and are then fed with diluted milk, and gradually come to live upon the food given to the cows. The cows were rather small—not sleek, spiritless, varying dun brown and tawny colored creatures. 2. A similar stable occupied by about twenty-five large fine looking cows, and a bull, that would have shown well at Poughkeepsie last autumn. The cattle were long, with great depth, and like many fine bodied animals I have seen, had generally any thing but good horns. They were too long and slender, and curved irregularly. Among them all, the dun was the prevailing tint. 3. A stable for working cattle. Of these the number was not large—about a dozen. They looked well. The same apartment lodges two workmen. 4. A stable for breeding mares and colts. Of these no

* Every man is titled in Hessia. Here are some illustrations: Mr. Prof. Dr. Bischoff, Merchant Labroise, Baker Berkman, Hair dresser so and so, Boot black so and so, Peasant, &c.

thing particularly interesting was noticed. They are decidedly inferior to all horses in New-York, of any pretensions to blood. 5. A stable for work horses. This and the last are paved, in common with the yard, with round small stone. All the horses were in fine condition, clean, well shod, with their tails tied up in what I suppose is fancied to be a pretty knot, to guard them from the mud of the roads at this season. Two workmen sleep here also. A little incident occurred here that diverted attention for a while from stalls and fodder. A "whiffet" that came to greet us at the entrance to the stable, had been entrusted, in the course of nature, with a beautiful second edition of herself, and the econom, to gratify us, took the little creature from the kennel, and held it awhile to look upon. The mother was no terrier, she could not growl; she was not of St. Bernard or Newfoundland stock—she could not trust; she was a cur—she could not be indifferent; she was a gentle little whiffet, blindly devoted to her offspring. Climbing to the top of a box near, she presented her petition with such eloquence as nature gave. She bowed, and crouched, and licked the coat of her master, and when he lowered the little charge so that she could assure herself of its safety, her eyes took on an expression, of which those who have only known curs and hounds in their rough sports can believe nothing. It is, perhaps, a trifling thing to notice, but what student of nature would deny himself such a volume of entertainment. Another was in store for me. On leaving the stable, the econom whistled as for a dog. In a moment the air above was filled with doves, and the fowls came trooping from all parts of the yard. Not receiving any grain, the doves returned. I thought they must have numbered some two hundred. I whistled a second time, and all flew down again. Opening one of the doors in the range 7. 7, out bounded a large dog, resembling a hyena more than an ordinary bull dog. He seemed to be overjoyed to see his master, but treated me as if I belonged somewhere else. He and two or three others are given the range of the yard and grounds at night. 6.6, and portions of 7.7, are swineries. I remember once seeing a picture in the *Cultivator* of what was called the "landshark." Here are the originals. I inquired if they were not bred from the wild swine which are still in some of the preserves in this vicinity. He assured me they were not. But, in truth, they are as widely contrasted with the Berkshire, the China, and what were once denominated the "grass breed pigs" of the Genesee Valley, almost as widely as the wild boar himself. 8. One of three sheep folds. It is a room with high ceiling, having straw on the bottom, and supplied with racks. The econom purchases wethers to fatten, and does not breed them. They are pastured when the ground is bare, and accompanied always by a shepherd and dog. The flock, of about two hundred, was all of young sheep, a year and a little more. Both lambs and calves generally are dropped a little before this date. Upon inquiry whether he thought it so well, he presumed the mortality among the ewes and lambs might be greater, though there were some advantages that I did not precisely comprehend. Their wool is coarse and long, though the bodies are finely formed, and still in the possession each of a long tail. I could not see any thing much above the common breed among us. 9. A carriage and wagon house. 10. A bee house. Little "cottages of straw" mounted upon other box hives of small dimensions, are the substitutes for the patent, most convenient hives, coming into use in New-York and Vermont. He says they are never annoyed by millers and worms. 11. The residence, with all its quaint antiquities, and its magazine of pipes and tobacco. 12. The distillery. Here alcohol is made from potatoes. First, the potatoes are fitted for mashing in a steam tub, then passed through a crushing apparatus into large tubs. Then comes the series of fermentations, gummy, sugar, and alcoholic. The alcohol condensed in a still yields a profit of about a dollar and a half, above the duties to the Prussian government. These are positively enormous, amounting to nearly sixty-three dollars a month. Naturally enough the closest surveillance is necessary in order to the collection of this revenue, and a *gens d'arme* visits the distillery at regular intervals, night and day, and requires a record of each hour's work. 13. The manure depot, so arranged as to receive the entire drainage of the stables. 14. A pump for elevating the urine to a hogshead, arranged something like our street watering carts, for the distribution of the fluid upon the fields. 15. A depot of straw. Heaped upon 13, is the litter of the stables, and all the sources of manure.

It is interesting to observe the connections which link the different parts of this econom's establishment together, and the profits which he compels all parts to yield. The cows he keeps for their manure principally, and therefore stables them. The potatoes he grows to feed his cows. Cheese, butter, milk and alcohol, are incidentals. The manure enriches the soils for the growth of wheat, rye, barley, beets, peas and beans, as well as potatoes. A portion of these support the stock, fatten the beeves and swine, and the remainder, after deducting the expenditures for the farm and the household, goes to swell the little store laid by for advanced age, for younger sons, or for luxuries. The econom attempted to explain his system of rotation, but so many of the terms employed were unintelligible to me that I have forgotten much of what he said. I think this is the plan he tries to carry out: First, potatoes; second, spring wheat; third, barley, or rye and clover; fourth, summer fallow and fall wheat; fifth, peas and lentils; then a year of repose, and then potatoes and the series again.

I hope to walk there again in the summer, and learn more definitely about the treatment of the crops.

Liebig's winter course of lectures is closed. The semi-annual dinner has been given, and the laboratory is shut for a month; at the termination of which the lectures will be resumed. More than half the students leave, and among them the first of the class. Spring seems close at hand, though we have several inches of snow on the ground, and the air is still cold.

E. N. Horsford.

MR. NORTON'S LETTERS—No. XIII.

Prof. Johnston's Lectures—Scotch Farming—Great Crops of Wheat, Oats and Turneps—Suhphuric Acid, Bones, &c.

Laboratory of Ag. Chem. Association,
Edinburgh, April 25th, 1845.

L. Tucker, Esq.—As I promised in my last a report of the second monthly meeting of the Association, I was happy to find that the subjects touched upon were such as are likely to be profitable to farmers in our own country. The meeting took place on the 9th of April, and was attended by a large number of gentlemen from various parts of the country.

After the usual preliminary business, Prof. Johnston made some remarks, suggested by a visit he had lately made to the farm of Mr. Aitchison, of Drummore, near Musselburgh, about ten miles south of this city. The farm consists of at least 800 acres, and lies upon the coal measures, the soil produced by the decomposition of which is generally considered very poor. In this instance however, art has overcome nature. Nearly the whole farm is now drained, and sub-soiled to the depth of 14 to 15 inches. Manure is added judiciously but most liberally, and the crops are remarkable. The cultivation of this farm has been so admirable in the hands of Mr. Aitchison's predecessors that it has alway yielded large crops. The records of these are shown in a book like a merchant's ledger, which has been kept with the greatest minuteness for more than 30 years. In it may be seen the produce of each field, the time of sowing, of harvesting, and finally the market at which each sample of grain was sold, with its price, and the average price of each year.

One six acre field produced an average of 42½ tons of white globe turneps, per Scotch acre, every load being actually weighed. In 1844, 13 acres averaged 31 tons of yellow Swedes. The Scotch acre is one-fifth more than the English imperial acre. But this same land produced equally good crops twenty years ago. The wheat crop of 1820 averaged, over 150 acres, 54 bushels. In 1832, 140 acres of oats averaged 85½ bushels per acre.

On land cultivated as this has long been, said Prof

Johnston, all we can do is to keep up its fertility; even modern science can scarcely hope to increase the crops; but one thing it may do, it may raise them more economically and with greater certainty.

After this notice of Mr. Aitchison's farm, a variety of substances lately sent to the Laboratory for examination, were mentioned. Among them were a number of limestones from different parts of the country; some of these were found very pure and remarkably well fitted for agricultural purposes; others would make admirable cements. The economical value of some ironstones was also noticed. The sprouts broken off during the malting of barley, on analysis have been found to be well adapted for manure, and to especially abound in phosphates. Large quantities are obtained in the extensive breweries, and in some instances they have been advatageously used as food for pigs.

The remainder of the remarks by Prof. Johnston were devoted to explaining the action of sulphuric acid upon bones. The nature of bone was first considered, it consisting of an earthly and a gelatinous part. Each of these has been found valuable where applied singly; burned bones especially, have been found to produce excellent crops of turneps. The sulphuric acid acts upon both these parts of the bone, and forms with the gelatinous part certain compounds soluble in water and capable of entering directly into the circulation of plants. In its action upon the earthy part much gypsum is produced, and bi-phosphate or super-phosphate of lime.

Thus many substances necessary to the healthy growth of the crop, are presented to it in a soluble state ready to supply its wants. Experiments in top dressing wheat and clover, have shown in several instances the great efficacy of the bi-phosphate.

The action of the acid is speedy, and soon reduces the bones to a soft pulpy mass; they may then either be applied in a liquid state after very large dilution with water, or they may be dried and sown in the drill, or used as a top dressing. The latter way is most convenient, but some trials have seemed to indicate that the liquid application is best. It probably ensures a more complete dissemination of the manure through the soil. Water should be added, even until the acid taste is not perceptible. Prof. Johnston, in conclusion said, he had been thus particular upon the subject of bones, because the supply of guano could not always last. When that was gone the farmers must have something to supply its place, and bones will then stand forth more prominently. He recommended the trial with preliminary experiments with them immediately, so that they might not in any way expose themselves to loss when compelled to find a substitute for guano.

After a few words upon some samples of guano, the meeting came to a close. Prof. Johnston will be at Durham during the months of May and June, and consequently there will not be another meeting until July.

I am yours very truly,

JOHN P. NORTON.

PRESERVATION OF WOOD.—Kyan's celebrated patent, it is well known, consists of impregnating the pores of wood with corrosive sublimate. Bennett's Antiseptic Solution, for the same purpose, is a solution of one pound of chloride of zinc in five gallons of water, and has been found superior to Kyan's patent solution. Another simple process consists in the application of *creosote*, along with coal tar, and other bituminous matter. The wood is thoroughly saturated to the centre of the log with great rapidity. A load of fir timber will absorb forty gallons; close grained timber less. The price of the creosote is 3 pence [sterling] per gallon; in some places not more than 2½ pence. Preserved timber, by this process, is supplied for rail-roads at 15 shillings a load more than the common price. Wood treated in this way is said to become nearly water-proof, and requires no painting. [It will of course be understood that the "creosote" spoken of is not the article sold in the drug shops, which is very costly, but a much cruder substance, similar to the substance sold many years ago, for smoking hams, under the name of *pyroligneous acid*.]

Domestic Correspondence.

MARYLAND FARMING.

MR. EDITOR—In one of your last letters you requested me to give you a sketch of any farms I might visit in Maryland. Last summer I made a short visit to my friend THOMAS J. DORSETT, at "Roedown," in Anne Arundel county, West River settlement, Western Shore of Maryland. Mr. Dorsett has 400 acres, 100 wood and 300 arable land, divided into four fields; and he farms on the four course system. First, wheat after clover. Second, corn and tobacco—the latter always on the lightest and driest soil. Third, wheat on the tobacco stubble, and oats on the corn stubble. Fourth, clover. Product, 15 to 20 bushels wheat, 35 to 50 bushels corn, one hogshead tobacco, 40 bushels oats, per acre. Clover is the principal fertilizer. The land is remarkably adapted to clover, and since its introduction, some ten years or more, the land in this region has been progressively improving.

Mr. Dorsett drove me a circuit of twenty-five miles, between South and West river, over a fine undulating country, well farmed; and, with one or two exceptions, the land all laid down in clover, looking almost as well as the western lands of good quality, (for it is not all good, you know.) There are no lanes here, but gates on the public road. We passed through sixty-six of them in a drive of twenty-five miles.

Mr. Dorsett has some good stock. I saw two fine blooded brood mares, one of them, a Naragansett, a picture. Her colts are good, and sell for high prices. Also some good grade Durhams, a flock of mixed sheep, cross of the common, Merino, South-Down, and Leicester—forty-eight ewes and two rams. The clip averaged eight pounds and fourteen ounces, unwashed. One ewe that bore lambs for two years, gave a fleece which weighed twelve pounds. Finer mutton I have never tasted than at his table, from this flock.

Mr. Dorsett manages his own farm, and has made it very productive. His sales have amounted to $3,300 per annum. Baltimore is the principal market. Butter, and small marketing, is sold at Annapolis. He observes system in all of his farming operations, care of tools, implements, &c.

Doct. STEWART, whose farm adjoins, was from home, which deprived me of the pleasure of seeing him and his large farm of some two thousand acres. It is highly cultivated, as I saw in passing through it. I have made the Doctor a promise to visit him some future time. Slave labor is used in this neighborhood altogether.

Yesterday I returned from a visit to GEORGE PATTERSON, Esq. who resides at "Springfield," twenty-two miles west of this, in Carrol county. He is a wealthy gentleman, and is extensively known for his fine stock, and enterprising character. His farm contains 1735 acres, about 1200 under cultivation, and 500 in woodland. It is rolling land, and well watered—a branch of the Petapsco running through it, supplies water for a grist mill, on the farm, where all the grain raised on the farm is ground for the family and stock. The woodland is admirably located to shelter the many fields from the northwest winds, and presented a beautiful and diversified landscape. The timber was formerly oak, but as it is removed, is supplanted by a spontaneous growth of hickory and chestnut, principally the latter. Mr. Patterson has cut out much of the old timber to burn lime, and also with a view to get rid of it to admit the young growth of chestnut.

When Mr. P. took possession of this farm, twenty years since, the land was poor, much of it *very* poor, and barren of vegetation, except *briars*,—with scarcely any buildings. Since then he has put upwards of one hundred and sixty thousand bushels of lime on the land, and erected fifty buildings of various kinds, all permanently and neatly built, and now all yellow washed, presenting in contrast with the green fields and woods, a picturesque appearance. His plan is, whenever a field is brought into cultivation, and made to produce clover for mowing, to erect as many barracks as will hold the hay. These barracks, or barns, are made of frame, some 20 by 30

feet square, 12 or 14 high, weather boarded, and covered with cypress shingles.

Mr. Patterson commences on the poor worn out land by spreading two hundred bushels of lime per acre, (measured at the kiln unslacked,) on the surface, and lets it remain two or three years. Then breaks it up and puts whatever dung he can muster, and plants in corn. The following is his system of rotation:—First year, corn; second year, oats, rye or wheat, and clover sowed in the spring; third year, clover, first year mowed, second crop left on the ground; fourth year, clover either left on the ground or moderately grazed; fifth year, wheat, timothy sowed with the wheat; sixth year, timothy mowed; seventh year, timothy mowed; eighth year, grazed; ninth year, grazed, and top dressed the last four years. Top dressing he prefers to plowing in the manure of any kind. Lime, he thinks, acts slowly, and does not show much the first year or two, and should be always applied to *grass*, and not on fallow. Much of this land is now in a high state of cultivation—producing 20 to 30 bushels wheat, 60 to 80 bushels corn, and two to three tons hay, per acre. The contrast between this farm and some of the adjoining land is wonderful! The one green, and luxuriant in crops; the other barren, and devoid of vegetation, having no green thing except a few low running briars.

This land was also very stony. With the stones Mr. P. has turnpiked several roads across his farm, which enables him to haul wood, lime, and manure in wet weather. He has also applied a portion of these stone to making drains. He makes drains by cutting a ditch four feet deep, and filling two feet with fine broken stones. Swamps and swails heretofore useless, are now made dry, and are among the most productive parts of his land. The fences are in prime order—the few worm fences that he has, are eleven rails high, staked and ridered, and six feet worm. The greater part are post and post and rails—upwards of ten thousand pannel—posts of mountain locust. A few chesnut posts he has been compelled to use, and these he protects from decay by filling round with stone, which drain the water rapidly off.

His barns, where the greater part of the cattle and hogs are fed in the winter, are situated on two opposite knolls, and drains are so arranged as to convey the wash from both to permanent meadows adjoining.

His stock is all of the most approved kind, and pure in blood. Of horses, there are several full blood mares, of high pedigree and beauty. "Mary Randolph," a superb mare of rare good points, a gray, has a filly one year old, the handsomest creature I ever saw. He has in all some twenty-five or thirty fine horses of various ages. At present, he is about crossing these mares with a large well formed horse, a cross of the Canadian—similar to the Morgan horse—with the view of increasing the size more suitable for carriage or draft horses. His herd of Devon cattle, about sixty in number, are a rare lot. I had heard of the Devon cattle, and seen the prints representing them; but I had *no idea* of their beauty. The prints, or some of them, are *carricatures*, at least of Mr. Patterson's best cattle. His bull "Eclipse," imported two or three years since, now five years old, is a perfect gem, the best bull of *any* stock, not excepting my old favorites, the Durhams, that I have ever seen. The cows have fine shaped and well developed udders, and must be good milkers. Mr. Patterson says they give rich milk, and a good deal of it. He has bred his stock with that object, and selected the best milking families. They have size enough—the bull would weigh 1000 lbs. nett beef—the cows are also large enough. They have fine shaped yellow noses, with a ring of the same round the eye—all uniform as so many peas. What will you think if I tell you that this will become the favorite stock before many years? The beef, you know, is celebrated for its fine quality, being so evenly mixed, fat and lean, instead of laying the fat on the surface.

Here I also saw upwards of seventy Berkshire store hogs—*hog fat*, in the clover field—and as many sucking pigs, intended for next year. The sows are allowed but one litter each year, and they all have pigs in May. Mr. P. has a fine flock of sheep—some full blood Downs from the flocks of Mr. Rotch, N. Y., and Cope, of Pennsylvania.

Every thing is done here in the best manner, and all the stock is of the *best*, without regard to price. The whole establishment is well worth one hundred thousand dollars. I have not done credit in the description. Mr. Patterson manages the farm himself—has no white man on the place but himself, and is a pattern in industry and frugality, even to Pennsylvania farmers. His neighbors are beginning to follow his example in the use of lime. A few years hence will have completed Mr. Patterson's plans of improvement, and then he will have the best farm in Maryland.

ISAAC DILLON.

Eutaw House, Baltimore, 20th May, 1845.

THE LAKE COUNTY SAND WASHED OUT OF SOLON ROBINSON'S EYES.

MR. EDITOR—My object in writing is, to correct some remarks in the April No. of the Cultivator, page 125, by Solon Robinson, touching this place, which, from the known character of your correspondent, as well as that of the Cultivator, we in this place feel is calculated to do us much injustice. We do not charge Mr. R. with intentional misrepresentation; but this does not alter the effect his remarks are calculated to have upon many of your readers to the injury of this place. We would say, however, that he must have been misinformed, or have formed his opinion of the people without knowing their character; and as to some other remarks of his, we think he must have had his eyes shut, or filled with Lake county sand, for had his vision been clear he would have received other impressions. He says "this place is located upon good prairie;" which is correct; but how he could say "inconvenient to mills," we suckers think mighty strange. A steam saw mill, also a flouring mill, has been in full operation for some four years within fifty rods of where Mr. R. lodged.

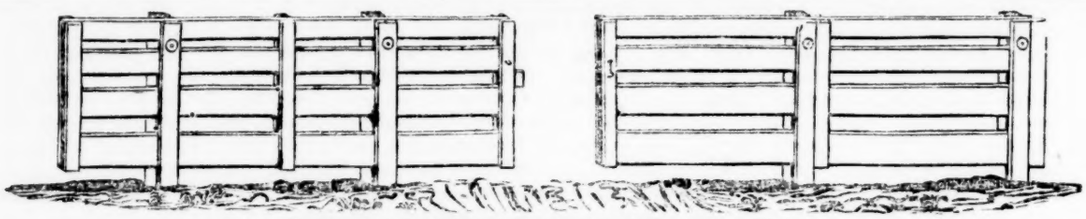
Mr. R. seems wonderfully taken up with the yankees but just tell him we are all suckers here, although we came, some from old, some from New England, some from New Jersey, and some from old Kaintuck, forming a compound that finds it may be equal, yet not superior in industry, intelligence and virtue. Your correspondent says we never read agricultural papers here. For his information I will state that there are 28 copies of the Cultivator and Prairie Farmer taken at this office, and as money does not grow on bushes even in this productive land, it is not reasonable to suppose that we take these merely for waste paper.

This place was first settled about the same time as Bunker Hill; and I will say that "in this eight year old settlement" we now have three public schools in this village, one of from forty to fifty scholars three-fourth's of a mile distant, two Sabbath schools, two meeting houses and worship in each every Sabbath; a temperance society, with 147 signatures to the pledge; a Bible society which has sold and distributed nearly 350 copies of the New and Old Testament, since January, '44. We have two public houses where the weary can find rest. Intoxicating liquor is not sold in the village, nor nearer than Bunker Hill, that I am aware of. There are seventy-five subscribers to newspapers and periodicals at this office. These are facts, Mr. R.; but not the half that might be said. You did not observe those shade trees by the road side and around our dwellings—eh? and those fruit trees in our gardens and orchards? did not notice our Durham cattle—our flocks of sheep; call on us next time, and let us take you by the hand, and let us show you some of *our* orchards, grass lots, barns, good horses; more scholars at school, and more readers of agricultural papers than there is in some of the oldest settlements in the state where the population is double.

I will close this epistle, Mr. Editor, after calling your attention and that of the public to a review by a subscriber, in the April No. of the Prairie Farmer, of remarks made in the March No., same paper, by Mr. Robinson

JONA. HUGGINS, P. M

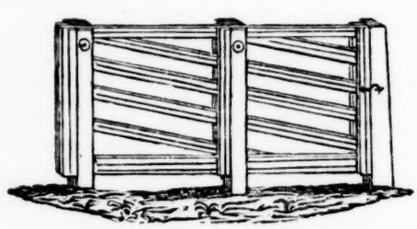
Woodburn, Macoupin county, Ill., May 12, 1845.



BAKER'S PATENT FARM GATE.—(Fig. 70.)

Mr. Tucker—I take the liberty of forwarding to you or insertion in the *Cultivator* a cut of a gate invented nd patented by Mr. Anson Baker, of Western. This ;ate was first constructed by Mr. B. about a year ago, ince which time several of them have been used by armers in Western and the adjoining towns. The above ut (fig. 70) is a tolerably fair representation of the gate with one of the posts partially open. The construction is simple, being in fact nothing more than two lengths of board fence placed on rollers in such manner as to open right and left with the application of very little force. These gates may be made of inch boards, either planed and painted neatly, or rough, like the common fence, at a trifling expense compared with the cost of almost any other gate now in use. The posts should be firmly and perpendicularly set, but they will retain their position far better than when the gate swings in the ordinary way. The posts may be in one piece, with a tongue or piece sawed out even with the ground, or a batten may be placed on one side and fastened by pins or bolts through the post, one of which may pass through the roller. The rollers may be of wood or iron, but wooden rollers, which cost by the quantity from four to six cents for each gate, have been found quite durable, and answer a good purpose. The diameter of the roller should be such as to correspond with the size of the post, and the space between the boards be just the diameter of the roller, to prevent the gate from raising at the back end when weight happens to be applied to the other. When in its natural position it is self balancing, and always in order.

Mr. Baker claims for this gate several important advantages, among which may be named cheapness of construction, costing no more than half the price of any other good gate; and convenience of opening, particularly in winter, as they are always in place, and do not have to be *carried* open by main strength, and are not troubled by snow.



Self-shutting Gate.—(Fig. 71.)

The cut (fig. 71) represents a self-shutting gate, very convenient for yards, gardens, &c.; answering, in fact, all purposes where a small gate is wanted. The engraving will readily show its form, and enable any one to understand its principles. When opened, the inclination of the boards or slats on the rollers causes it at once to resume its proper position.

It is proper to add, that the above named gates have been used by many of the best farmers in Western, among whom Mr. Baker refers to George Brayton, Esq., Hon. Arnon Comstock, David Utley, Esq., and others, who have had them in use, for evidence of their utility. Of the importance of having a gate which combines cheapness, convenience and durability, it is not necessary for me to speak, as these things are fully understood by all good farmers. If on trial this gate shall answer the expectation of its inventor, the public will not be slow to adopt it. E. Comstock.

Rome, N. Y., June 6th, 1845.

ECONOMICAL WAY OF MAKING MANURE, &c.

Luther Tucker, Esq.—The writer, agreeably with his promise, will now give you the simple method by which, during the past winter, he collected a much larger quantity of manure than he has heretofore done; and which, his present crops are showing the advantage of.

He will premise, by saying, that his stock were well fed, housed and bedded with leaves; and gave evident proof of the value of proper care.

Immediately behind each row of dairy cows, is a wood gutter, 12 inches wide, 4 inches deep, and running the length of the stable, which receives the droppings from the cattle; and as the gutter is laid a little sloping, the liquor passes, and (with the use of a scraper) the dung is readily removed into a pit on the outside of the stable, which is thus kept clean.

The pits are 2 feet deep at each end, and rather more in the centre, where an old oil cask, containing about 200 gallons, is sunk into the ground, so that one-half the cask is below the bottom of the pit; here augur holes are made in the cask, by which the pits can be drained at pleasure.

The pits are half filled with muck from the adjoining woods, (mostly old decayed leaves or vegetable mould,) and over it is spread a good coat of plaster: on this layer of muck, the gutters empty themselves.

About once a week, a man occupies half an hour in leveling the heaps, and thoroughly soaking them with the liquor from the casks; at the same time sprinkling over a little plaster to prevent any offensive smell.

As soon as the muck is sufficiently covered with manure, a fresh layer is laid on, and in this way the pits are filled with alternate layers of muck and manure.

There is no waste of liquor, as what is not absorbed by the heap passes through it to the bottom of the pit, and again into the cask. During the past winter, we had not only sufficient to saturate all the materials we had leisure to collect, but were able to haul out several hundred gallons to the grass lands.

On the pits requiring emptying, their contents were *compactly* stacked where wanted for spring use, and on being opened contained a mass of rich manure, collected as you will see at a very trifling outlay; a few bushels of plaster being the only ingredient not furnished by the farm.

The writer, at leisure, proposes giving you his plan for winter feeding—a subject to which he has directed his attention, with a view to economy in food—producing good milk and butter; and the saving of cost in exchanging dry for fresh cows; at the same time he desires not to occupy your columns to the exclusion of more interesting matter. Woodside.

N. B. Crops of Grass very short from the limited rain the last three months; cutting generally commenced round the city, (Balt.) The crops of broad-cast corn referred to in my last, although checked for want of moisture, now 18 inches high; the ground well covered, and the corn and oats in a fine healthy state.

On 3 acres of ground, laid out in furrows (north and south) 3 feet apart and well manured, the writer has planted 2 rows of corn, with hills 2 feet 6 apart, giving 5,808 hills to the acre; then 2 rows of potatoes, and so on alternately; there being 9 feet between each double row of corn; it is presumed it will have as much sun and air as though planted as usual, 4 feet by 4 feet (2,722 hills to the acre) and that the opening of 9 feet will prevent injury to the potatoes—both crops have been

well cultivated and plastered, and appear in a very thriving state. If the plan succeeds, the 3 acres of land would give one and a half acre of potatoes and equal to 3 acres of corn planted 4 feet by 4 feet—whether it succeeds or not, I propose giving you the result. In the one case, it may induce others to try it for themselves; in the other, spare them the trouble of doing so.

Maryland, June 7th, 1845.

GESTATION OF COWS.

Mr. Editor—While living on my farm, I found it not only useful, but very necessary, to keep a record of the time my cows were put to the bull, as well as the time of calving. By the means of keeping a record, I was enabled to make a calculation on the probable period parturition would take place, and be prepared for the event, and avoid accidents which might occur, when no attention was paid to the subject.

The experiments and facts which I am about to state, may not be considered of much importance to farmers generally, but to the breeders of cattle, and the inquiring mind, they may, I trust, be interesting; and some good may possibly result from their publicity.

Earl Spencer, in a paper communicated to the "Journal of the Royal Agricultural Society of England," says the shortest period of gestation, which a live calf was produced, was 220 days; and the longest 313—difference 93 days.

M. Tessier, in a memoir read to the Royal Academy of Sciences at Paris, says that in 1,131 cows, which he had the opportunity of observing, the shortest period of gestation was 240 days; and the longest 321—difference 81 days.

Both of the foregoing statements differ from my experience. Among my cows, though numbering only 62, the shortest period of gestation was 213 days, and the longest period was 336—difference 123 days. But as regards the shortest period of 213 days, I must confess I have had my doubts as to the correctness, though I kept the record myself, for in no other instance have they fallen below 260 days.

It would appear from the Earl's statements, that a calf produced at an earlier period than 260 days, must be considered decidedly premature; and any calf produced at any period of gestation exceeding 300 days must also be considered irregular, but in this latter case the health of the produced is not affected.

There are some facts presented in my record which differ from any statements which have fallen under my observation. For instance, in 1839 I had fourteen cows, three of which produced heifer calves; and the period of gestation averaging 284 days, while the other seven produced males, and averaged 280 days. This, in regard to the time allowed for males and females, is contrary to the prevalent belief among farmers, and differs very materially from the result of the following year, 1840. I had that year thirteen cows, six of which produced heifer calves, whose period of gestation averaged 278 days; and seven produced bull calves, averaging 299 days; the shortest period of the heifer calves was 213 days, and the longest 336 days; being the greatest extremes of either year. The shortest period of the bulls was 278, and the longest period was 289 days. In this year the number of males and females were nearly balanced.

The next year, 1841, eleven cows produced eight heifer and three bull calves. The shortest period of gestation for the heifer calves, was 277 and the longest 292 days—averaging 286 days. For the bull calves the shortest period of gestation was 284, and the longest 299 days—averaging 293 days.

In 1842, the order seemed to be reversed; for out of thirteen cows, nine produced males, and four females. The shortest for the males was 281, and the longest 294, averaging 287 days. There was but very little difference in the time for the females; the shortest period being 280, and the longest 286—averaging 284 days.

In 1843, the proportion of males to females, was, as in 1840, nearly balanced. From eleven cows, six male and five female calves were produced. The shortest period for the males was 277, and the longest 290—averaging 282 days; and the shortest period for the females was 276, the longest 286—averaging 282 days.

In the five years, which embraced my experiments, sixty-two cows produced twenty-six females, and thirty-six male calves; the period of gestation for the bull calves, averaging 288 days, while the heifers averaged nearly 283 days.

In the experiments of Earl Spencer, those cows whose period exceeded 286 days, the number of females was only 90, while the number of males was 150. Now, in my experiments, those cows that exceeded 286 days, the number of females was 7, while that of the males was 12. The number of female calves produced under 283 days was 24, while that of the males was 31. In most cases, therefore, 283 or 288 days may be assumed as the usual period for gestation, and not 270 days, as stated in Youatt's work on cattle.

My experiments were not confined to any particular breed or variety of cattle—they consisted of Durham, Devon, Herefords, Ayrshires and grades; and I think these results, though derived from the observation of one person only, will be found equally applicable; at any rate, we should be pleased to hear the results of others.

C. N. Bement.

American Hotel, Albany, July, 1845.

CULTIVATION OF FRUIT.

Mr. Tucker—Among the various objects that engage the attention of the agriculturist, few have higher claims upon his care than the cultivation of fruit. When man was fresh from the hands of his maker, the fruits of his garden became the sole objects of his culture, as they constituted his entire, yet ample means of subsistence. Health, vigor and longevity resulted from this simple fare; and there can hardly be a doubt that even at this day, a nearer approach to this primitive simplicity of diet would contribute much to the preservation of health and happiness among mankind. When we consider the great and constantly increasing varieties of fruit that are capable of being cultivated in our climate; their wonderful capacity for improvement; the elegance of form and beauty of color displayed by many of them; and above all their delightful fragrance and exquisite flavor; it may well be asked, what objects demand our more constant and fostering care? Nor is the value of fruit at all lessened when we view it as a means of increasing our wealth. If our farmers, with their present very meagre and imperfect collections of fruit, have often found the produce of the orchard among the most valuable of crops, what may they not expect when the best and most profitable varieties come to be the objects of their culture? In this region we can boast of but few apples of decided value, and until a recent period we had but one superior and some half dozen tolerable pears. Of the best of apples, and of those exquisite productions of the pear kind, with which the science and skill of a few individuals have enriched the world within the last half century, we are yet to become partakers. The peach and the plum had almost become extinct among us for want of a sufficient knowledge in their culture to counteract their diseases, and to protect them from the depredations of insects. Their best varieties have never been seen here at all. These defects in our system of rural economy cannot fail of being amended when the attention of the public can be sufficiently awakened to their existence; since it is not so much the remedy, as the determination and skill to use it, that is wanting.

But the principal design of this communication is to lay before the public some observations that have lately been made in the culture of a few particular varieties of fruit. In the contiguous counties of Westchester and Fairfield, and probably over a considerably wider extent of surface, the Newtown Pippin tree has never worn the healthy and flourishing appearance of the other cultivated sorts. It is slow of growth, and the bark of even young trees has a peculiarly rough and perforated appearance, as if often traversed by the woodpecker. For many years its fruit has been gradually deteriorating until it has become in many orchards nearly worthless. So

generally indeed is this the case that cultivators are about abandoning it as one of the wornout varieties, considering it stricken with the incurable degeneracy of age. That such an opinion however is not well founded, may be inferred from the fact that this fruit, when grown in the new and more virgin soils of the interior, is to this day fairer and larger than we have ever been accustomed to see it here. This fact would seem to indicate, not the degeneracy of the tree itself, but the want of something in the soil to enable it to bring out its fruit in full perfection. Some other of the older varieties of apples have degenerated much within the last twenty or thirty years. The same thing has happened to some of the choicest pears. The White Doyenne, or Virgalieu, until recently the only superior variety ever cultivated here, has for twenty years ceased to ripen its fruit. The tree itself seems healthy, but its fruit commences cracking when half grown; becomes woody, and scarcely a pear has ripened on these trees for nearly a quarter of a century, with the exception of the last two years. Year before last a few, and last year a greater proportion of these pears came to perfection. Here again the soil has lacked something that this tree required in ripening its fruit; and the favorable change observed last year would seem to indicate that this material, whatever it is, which after a long period had been exhausted by the annual fructification, has, after a lapse of twenty years, accumulated again in quantity sufficient to bring some of its fruit to perfection. The Seckel pear, a most delicious fruit, having but recently been introduced here, ripens with us in great perfection; but at Philadelphia, where the tree originated about a century ago, probably from a seed of the Rousselet de Rheims, which it greatly resembles, the Seckel has begun to suffer from exhaustion of its appropriate food, and requires an artificial supply to restore it to its wonted perfection. This fact I learn from Mr. L. C. Ford, of Olney Park, accompanied with the valuable information that the material wanted in this case was some ferruginous compound, as by giving a liberal supply of slag from the iron foundry to the roots of his trees, he has restored its fruit to more than its pristine excellence.

With regard to the Newtown pippin, I am in possession of facts showing that our soil requires only some compound of lime, probably the phosphate, to enable it to bring this apple to full perfection. The details of this discovery would extend this article to an inconvenient length, but they will cheerfully be given to any gentleman requiring them. One of the facts upon which this opinion is based, goes to show that an old and decaying Newtown pippin tree, which in 1840, bore chiefly small, rusted and valueless fruit, in 1842 presented a healthy and flourishing appearance, and commenced bearing large, fair and beautiful apples, and has done the same every year since; under no other treatment than that of having the clam and oyster shells from the table of the family deposited under it, which has been done from the date first mentioned up to the present time. This spring the tree has a very fine appearance, and is preparing for a heavy crop. It is worthy of notice that the very next tree in the row is likewise a Newtown pippin, which still continues to bear very inferior fruit, fit only for cider.

Most of the fruit trees will grow and bear fruit in any tolerable soil, but to produce it in full perfection, many of the choicer kinds probably require materials with which the earth in this region is but sparingly provided. If every different species of vegetation requires its own appropriate food; if corn, wheat, rye, &c., in two or three successive crops exhaust the silicate of potash, or some other sparingly provided material, essential to their growth, and can no longer be cultivated in the same fields until time, or the hand of man, has restored what is wanting; it surely need not excite our wonder that a tree, fixed to the same locality, and drawing all the materials of its subsistence from a few feet of ground, should, in the lapse of fifty or a hundred years, exhaust those sparse and delicate materials essential to the perfection of its fruit; and struggling with adverse circumstances, continue for a long period afterwards to bring forth only fruit of a very inferior kind. To this cause, rather than to antiquity of origin, we may probably ascribe the failure of some of our favorite fruits. The Rousselet, for instance, long so highly prized by the confectioners in France, is now said to be rapidly failing in that country; but having been introduced into this town about fourteen years since, in mistake for the Seckel, is found to be a vigorous and rapid growing tree, producing excellent fruit. This is certainly an important subject, and deserves further investigation. May we not hope that a series of well directed experiments, with careful observation, will eventually yield the agriculturist that intimate knowledge of the requirments of the plants and trees he cultivates, that shall enable him, by supplying their individual wants, not only to recover, but to exceed the former perfection of the now deteriorated fruits?

THOMAS CLOSE.

Portchester, Westchester county, N. Y.

THE SHEPHERD'S DOG.

MR. TUCKER—SIR—You may inform your correspondent "J. P. M.," that Isaac Hardy, Esq. of Lasalle, Lasalle Co., Illinois, owns a flock of some fifteen hundred or two thousand sheep, which are under the entire management of a Scotch shepherd and his dogs, who imported a pair from Scotland, thorough bred animals; from these he has now, I think, twenty or thirty in train, and for sale. Your Feburary number for 1844, contains a faithful picture of an animal that Mr. Hardy sent me last year. We have proved his skill among our flocks in driving on the road, and must say he is worth two men. There is no need of bawling, whipping or running; you may ride in your carriage, and the dog will, very dexterously and quietly, conduct them along fifteen miles, one hour earlier than they can be driven by two boys or men.

Nathan Hardy, of Monkton, (Vt.,) has a slut of this stock, and may be able to furnish them.

In a state containing so many sheep as Vermont, I am surprised that we have not bred the shepherd's dog, more especially when we find so many worthless dogs among us. Yours truly, SOLO. W. JEWETT.

WOOL DEPOT AT KINDERHOOK.

MR. TUCKER—I wish to call the attention of wool growers to the advertisement of H. BLANCHARD, of Kinderhook, in the last No. of the Cultivator, and to recommend it to their particular attention. The disadvantages of having to sell our wool to agents and speculators, have long been a subject of general complaint; but no plan has heretofore been devised, that promises any satisfactory improvement. Mr. Blanchard's plan will enable the farmer to place his wool where a large number of manufacturers will examine it personally, and many of them are pleged to give that depot the preference; and nothing will intervene between what the manufacturer is willing to pay, and what the farmer receives, but the commission paid the agent.

The establishment is to be conducted upon strictly fair and honorable principles, in order to give it character among the manufacturers; the interest of the agent as well as the grower being equally concerned in such a course. The larger the amount of wool deposited, the greater the inducement for manufacturers to visit it; and I think wool from other counties would find a much better and readier market there, than in the wool houses of the grower. The principal objection of persons from a distance will probably be, the responsibility, capability, and integrity of the agent; to such, I have to say, all is right on those points; and as evidence of its truth, will state that about ten thousand fleeces are pleged to Mr. Blanchard, from the single town of Canaan.

There can be no doubt that many advantages will be derived, not only to the wool grower, but to the manufacturer, which I have not time to mention, but which will readily occur to intelligent minds. Any farther particulars in regard to the plan, may be obtained by addressing H. Blanchard, Kinderhook, Columbia County, N. Y. DANIEL S. CURTIS.

Canaan, June 12th, 1845.

RUST IN WHEAT.

MR. TUCKER—In my peregrinations, I often meet with practical men, who still believe that rust in wheat is occasioned by the fungus tribe, whose minute seeds are wafted abroad by a moist and foggy atmosphere from Barberry and bramble bushes, where they are grown on their native pastures, as it would appear for the very purpose of destroying the hopes of the husbandman. But since the doctrine of cause and effect is beginning to be better understood, it may be hoped that this, one of the most pernicious errors ever entertained, may also become extinct. That the rust and every other disease in wheat, as in everything else, is the *effect* of a *cause*, is a grand discovery, and must lead to the most important results, as man will no longer grovel in the dark, but feel himself competent to cope with the evil on plain ground, and the mastery will be his.

I was, the last week, spending an evening with a very intelligent farmer, who had lately embraced this doctrine, and he does indeed rejoice in the light afforded him. He no longer trembles at the sight of a barberry bush, but when a blight takes place, looks back for the cause, and is pretty sure to find it in his diary, where is kept a daily account of the weather and its prognostics, and on turning to it to show me how truly the *cause* always precedes the *effect*, I saw, often repeated, the following entry: "A sharp wind from the north-east this morning; look out for blight in some shape or other," and if, at the time of blossoming or ripening of the grain, foggy and damp weather prevailed, I more than once observed the remark, "the value of grain has risen about five per cent. to-night," and my friend has grown so confident as to believe he can, by care and fore-sight, prevent about one-half the evil that he has hitherto encountered in this way, and is enabled to account for the other half in a rational and satisfactory manner, and this to him is equal to the value of the whole. I found also, that he had made some very interesting observations on a popular work that treats expressly on this subject, exactly in keeping with this new view of cause and effect, which I have prevailed upon him to allow me to copy, and present, with your permission, for publication in the pages of the Cultivator.

In Vancouver's Survey of Devonshire, England, there is a letter from a clergyman, addressed to the Surveyor, in which the rust in wheat is uniformly ascribed to the influence of the barberry, bramble, and about half a dozen other shrubs and trees, and even grasses, on which fungi are produced; the seeds of which are scattered for miles by the first spring breezes, provided they are accompanied with moisture or fog. He says: "The fungus having arrived at maturity in the spring on certain shrubs, bushes and plants, is taken up by the first humid atmosphere and wafted into the adjoining fields where the wheat under the *western* hedge is sure to suffer the most: the seeds being so minute and exceedingly light as to be wafted by every breeze, when accompanied by moisture or fogs." Now how curious! that these minute seeds should be scattered by the very winds that are most unfavorable to their flight; for a moist breeze would assuredly deposit them instantly on the earth; and why is it, that the wheat under the *western* hedge is most likely to suffer? are there more barberry bushes in western hedges than any other? rather is it not because of its eastern exposure, to that quarter from whence the blighting blast proceeds? We all know that some years have no blight or rust, and yet these obnoxious bushes retain their positions, whether in the western or other hedges, which in those seasons when rust prevails the most, the early sown wheat is always least affected; this being universally the case, as shown by the Surveyor himself, for in the chapter on wheat he uniformly ascribes the rust and mildew to weakness or tenderness in consequence of late sowing and bad situations; and this throughout the whole seven districts which he is surveying. He says, "District No. 1. The mildew or rust is but little known, except in small enclosures and low situations, where the crop is excluded from a free circulation of air in the higher parts of the country, where the fields are large and the division-mounds are covered only with dwarf hazel or willow and creeping brambles, the evil is by no means such as to require particular notice. District No. 2. Wheat has frequently been sown after turneps, but on account of its being so very liable to the rust when sown at that late season, barley is becoming its more valuable substitute. District No. 3. The rust or mildew is a disease seldom known in this district, except on wheat sown after potatoes, (late sown.) Disirict No. 4. Late sown wheat is found to be peculiarly subject to rust or mildew, and is much complained of. District No. 5. Wheat sown late is always more or less injured by rust or mildew. District No. 6. When turneps fail, the land is sown with wheat, the early sown crops of which are the best sample, and by far the freer from rust or mildew. District No. 7. The late sown wheat is always very liable to rust or mildew."

Now, after this, who would go and thrust his head into barberry or bramble bushes to seek for the cause of rust or mildew? while it is particularly worthy of remark, that the willow and bramble grow harmlessly on the "division-mounds of large enclosures," although these are amongst the accursed fungi-bearing tribes, enumerated by the surveyor's reverend correspondent; and who himself adds, "In low situations and small enclosures, where there is a want of due circulation of air, the rust has been noticed to make a sudden appearance after foggy weather;" and how is it, if the rust is occasioned by the seeds of fungi, which sail against wind and weather, that the late sown wheat is always sure to catch them? The reverend gentleman says, "In damp weather its seeds are more immediately received into the leaves of trees and shrubs, together with their barks and fruits, through the medium of those valves and *mouths* with which nature has endowed them for the admission of moisture." Then it would appear, either that the young wheat plants have larger mouths than the older ones, or that they are so inexperienced as not to know when to keep them shut, but, like children, must always be tasting! Unhappy urchins! see what comes of indulging the appetite! The rust, unlike the tempter of man, who goes roaring about seeking whom he may devour, prowls out on the first humid breezes of spring, tantalizing the little tender plants to take a sip at pleasure's fount, and down they go to perdition.

See here now, the effects of ignorance and superstition. Instead of viewing things in a rational way, we are seeking for the most improbable modes of accounting for the commonest occurrences; and if a cold wind in the spring nips vegetation, causing the young and tender plants and the most exposed, to feel it the worst, the mischief, forsooth, must be done by fungi, which have been sitting on some barberry or bramble bush, "to sally forth on the first humid breezes of the spring, to be the destroyers of thousands of acres of those golden sheaves, which are the husbandman's hope, and the staff of life."

CHARLES HAMILTON.

Chester county, Pa., March, 1845.

SETTING POSTS—FENCES—HARROWS.

MR. TUCKER—Posts for fences or other purposes, set into the ground, will last double the length of time by being put into the middle of the hole. The space around the post filled with small stones instead of earth, the earth does not come in contact with the post, and air is also admitted into the hole, both of which probably tend to prevent decay. In constructing fences, the earth taken from the hole is placed directly under the line of the fence, thus forming a ridge which is a saving equal to twelve feet of boards in four lengths of fence. The stones should be raised three or four inches around the post above the surface of the ground. The posts will not be very firm at first, but after standing through one winter their firmness will be much increased, and will continue to increase for several years.

A post and rail fence constructed in this way forty-five years since, in the vicinity of Boston, is now standing, with the exception of one post, and will probably stand a dozen years more.

The common zig zag rail fence is much more durable with upright stakes than with cross stakes. My method

is, to connect the stakes before the top rail is put in, with iron wire, say one-fourth of an inch in diameter, which is done after the stakes are set by bringing the tops of the stakes as near together as the fence will admit; then take the measurement with a cord, which will show the length to cut the wire, which is easily done with a cold chisel; the ends of the wire are then hooked around each stake; the top rail being then put in, completes the fence. With an iron a foot or more in length, with a hole near one end to admit the end of the wire, the operation is quickly performed. This is a much cheaper method of securing upright stakes than the usual way with a piece of scantling.

THE HARROW, whether square or triangle, should be constructed entirely of iron, (except the points of the teeth, which are steel); bars of iron of proper thickness, width and weight, are selected and welded together so as to form the desired shape for the frame; the tops of the teeth being rounded about an inch down, pass through the iron plate or frame, and are made fast on the upper side by a nut. The teeth in this way are always kept tight, which is very difficult in a wood framed harrow. With the exception of the teeth, a harrow thus constructed will endure a century without being housed.

A FARMER.

GRASSES FOR THE SOUTH.

EDITOR OF THE CULTIVATOR—Your correspondents frequently inquire respecting the grasses suitable to the south. If each would communicate what he has observed, it would be a sufficient answer to such inquiries, and might prove the most important benefit to the agriculture of the south. During this winter I have seen bundles of *northern hay* brought to the stables of my neighbor, which had paid for carriage many hundred miles round the capes of Florida, through the Gulf of Mexico, and five hundred miles (by the course of the river) into the interior. This is a *standing reproach* to the agriculture of the south.

LUCERNE.—This is found to grow well here. Sow it in drills, in the early part of the fall, 24 to 27 inches apart; it flourishes, yields four to five cuttings in the course of the year; and on soil which would bring 20 bushels of corn to the acre, grows one foot and a half high. This season, some was cut on the 12th of March, for soiling; and was then from a foot to knee high. The most of it has been cut twice over, since the first cutting, to this day, May 13. Cattle and horses eat it greedily; a cow, fed on it chiefly, is yielding at this time between five and six gallons of milk daily; when as yet there is no grass in the woods or on the common, sufficient to change the poverty-stricken appearance of the cattle in "the range." I have made no hay from it; but have no doubt it will make good hay.

GUINEA GRASS.—The root is similar to that of the cane or reed, and is perennial. The stem and blade are like those of the Egyptian Millet. On rich soil it is very luxuriant, yielding many cuttings in the course of the year. It is good for soiling—horses and cattle eat it readily, and, if cut when in flower, it makes a hay most abundantly, of which cattle feed greedily in winter. Horses do not seem to like the hay. It is most readily propagated by the root. A small root, two inches long, with one or more joints to it, will vegetate; and, if the ground is made loose by plowing once or twice during the season after planting, roots placed in checks of four feet will take *complete possession of the soil the first season;* so that the next spring it will start up evenly over the soil everywhere. Hogs root after them with great eagerness; and as the tendency of this plant is to fill the ground with roots in so thick a mat that the grass does not grow tall in consequence, the idea suggests itself of pasturing cattle on this grass in the spring and summer, and giving the hogs the benefit of the roots in the winter. They cannot destroy it; the smallest fibre left in the ground will grow. It might be a great pest in a *garden;* but if land is to be used for stock it will take and maintain entire possession to the exclusion of any competitor which we have in middle Alabama.

CLOVER AND HERD'S GRASS.—I have now a beautiful lot of these grasses in conjunction, on high land; the whole about knee high, and the clover in flower. Mr. Kirby, one of my neighbors, cut the wood from a piece of low, pipe clay, crawfish land, last winter; and when the brush, &c., lying on the ground, had become sufficiently dry, he set fire to it and burnt it all off; thus giving it a top dressing of ashes. He then sowed Herd's grass on the top of the ground, without plow, harrow, or any thing of the kind. He now has a most rich and beautiful crop of this grass growing. If desired, your readers may obtain further particulars of this crop.

LEERSIA ORIZOIDES, (rice grass.)—This plant so much resembles *rice* that only a practiced eye can distinguish them. The negroes on the rice plantations in Carolina call it "*the rice's cousin.*" It will grow wherever rice will—*in the water,* or in any damp situation. It is found wild in all the southern country; grows tall, seeds in a panicle not unlike a head of oats, and will yield two crops a year of *choice hay.* Roots perennial. B. M.

Tuskaloosa, Ala., May 13, 1845.

TREATMENT OF SHEEP AFTER SHEARING.

MR. TUCKER—The directions for a "compound for smearing sheep," that is given in your last number, leads me to make the following remarks respecting the treatment of sheep generally after shearing. There is nothing conduces to the general health and comfort of sheep at this season more than a clean skin; any application that has that tendency will be of service; any thing to the contrary must injure them, and the growth and quality of their wool, in a greater or less degree. Smearing of any kind is injurious at any season, but particularly so after shearing, when the wool is short; it stops the pores, checks the growth of the wool, and leaves it dry and brittle, far into the season. If when sheep are shearing, there is a large hogshead of *very strong* brine made, and as the sheep are shorn they are taken to it, and while one man holds the sheep, another takes a strong *scrubbing brush,* such as floors are scrubbed with, and after pouring some of the brine along the back and shoulders, he scrubs the sheep well all over, until he raises a lather as with soap; nothing more is necessary. The skin will be left bright, and red, and clean. Every tick and sheep louse instantly disappears, and if the skin had any tendency to itch, it is entirely cured; perspiration is promoted, and the growth of the wool improved. In this way I think that the general strength of the sheep, to withstand the effects of any storm, will be better promoted than by smearing of any kind, which is never admissible. Whenever this simple and cheap plan is once adopted, its effects are so obvious that it will never be neglected by the good shepherd every season after, at shearing time.

GRAZIER

BLACK LEG IN CALVES.

MR. TUCKER—The remarks on "the black leg in calves," in your last number, taken from a Scottish paper, remind me of my own sufferings, and those of my father, from that dreadful disease for many years, and never occurring but on the one farm, and when the calves were in the highest condition. The inhabitants of the island of Araumore, on the western coast of Ireland, are famed for raising the finest calves in the kingdom. In one of my visits there, to purchase their heifer calves for spaying, in talking over the several diseases that stock are subject to, I named the *black leg* in calves, and to my surprise I learned that they had for a century before, in that primitive spot, been aware of not only a cure, but a preventive for that disease, as effective as it was simple and easy to administer. At six weeks or two months old, they took the calf, and under the tail near the butt, where the skin is free from hair, a small incision is made, and pea of garlic about the size of half a hazle-nut is inserted into the incision, the skin being loosened a little *downwards,* so as to retain the pea, which is left in. The effect is surprising. As quick as the person performing the operation can step from the tail to the mouth of the calf, the smell of the garlic is perceptible on the breath of the animal! On my return home, I had the operation

performed on all my calves, and every year afterwards when about two months old, and from that time to the present I never lost one from the "black leg." I will here add, that I never heard as yet of a case of the "black leg" in calves in this country; but if such a disease ever makes its appearance, you may rest satisfied that the above is a sovereign remedy. GRAZIER.

Louisville, Ky., 10th June, 1845.

WASTE MANURES.

The Economy of Waste Manures; a treatise on the nature and use of neglected fertilizers. By JOHN HANNAM, 8vo., pp. 114. London, 1844.

This is a valuable practical treatise on manures that are generally neglected, or suffered to go to waste. Although its application is intended for the farmers of England, it may nevertheless be read with advantage in this country. The essay was written for the Yorkshire Agricultural Society, by Mr. John Hannam, who is the author of two prize essays, "On the use of hand tillages," and "On the effects of special manures."

The work before us on "Waste Manures," may be had of Wiley & Putnam, in New-York. It has less of scientific detail, and more of practical utility, than most of the late chemico-agricultural publications, and is accordingly better adapted for perusal by the plain home-spun farmer.

That the reader may judge for himself of its value, and of the subjects treated, we will state its contents. It is divided into three chapters. Chapter 1, Introductory—the importance of an inquiry into the economy of waste manures. Chapter 2, The general nature of waste manures, and the source from which they may be obtained. Chapter 3, The particular nature, value, and economy of waste manures.

The third chapter is divided into three parts—the first designating the waste manures of the farm; the second, waste manures of towns; the third, local waste. By enumerating these the American farmer will see at once what part is applicable to this country.

"1. Waste manures of the farm.

"Draining from cattle sheds, draining from manure heaps, drainings from houses and offices—gaseous waste from manure heaps—refuse, and vegetable."

"2. Waste manures of towns.

"Sewerage waste—waste of manufactures, viz: shaddy, croppings, sweepings, singeing dust—flax waste, soap liquid, gas waste, viz: coal tar, gas lime, ammoniacal liquid—sugar waste, soap boiler's refuse, tanner's bark."

"3. Local waste.

"Peat, sea-weed, ashes, fish, clay, marl, chalk, sand, water."

The neglected and waste manures of the farm, as above stated, are applicable to this country as well as to Great Britain. The drainings from cattle sheds, and barn yards are very common here. We often see a barn-yard on a slope, permitting all the liquid portions of the manure to run to waste, and the remainder to be soaked and leached by the rains so as to render it of little value. Nay, some old fashioned farmers among us are so averse to wet and moisture, that they dig trenches that their barn-yards may be perfectly dry.

Drainings from manure heaps are also to be avoided. Hannam recommends trenches to be dug around a compost or manure heap, and a pit at one end to receive the liquid, which is to be returned upon the heap. This may be rendered unnecessary with us by heaping the compost on one side of the barn-yard, which, if hollowed, will receive the liquid, or soakings from rain, and will not be lost. It has been my practice to remove the manure from the stable, hog pens, and barn-yards, spring and fall, and to make a compost with these and other materials, on the side of the yard, or in the field where they were to be applied. After fermentation, the heap was turned, the materials broken and well mixed before application. In two instances my heaps had begun to ferment, when the fermentation was arrested by repeated and soaking rains, one instance in the spring and one in the fall. The manure was consequently cold and heavy, and depreciated when carted out. To remedy this inconvenience, a shed was built adjoining the barn-yard capable of holding 150 to 200 ox-cart loads of manure. Under this shed it is now heaped and fermented, free from exposure to the weather, and two trials of its utility have been very satisfactory. Some farmers, particularly those among the *Friends*, in the western part of New-Jersey, protect their compost heaps by the same method.

The drainings from houses and offices are universally neglected, and in some cases might be easily preserved and conveyed to the compost heaps or barn-yards, to add to their fertilizing properties; but in this country it is difficult to recommend a course that would be universally applicable.

Gaseous waste from manure heaps should by all means be avoided, as a mass of compost in a state of fermentation, exposed and unprotected, loses a rich and valuable portion of its substance. The author of the work under consideration says, (p. 26)—

"The loss of *gaseous manure* arises from the escape of the carbonic acid, and the ammonia of the vegetable and animal matters in the manure heap, during the process of fermentation and putrefaction; both of which gases are essential in the nutrition of vegetables."

To prevent the loss of those gases which escape into the air, Mr. Hannum recommends what he calls a *fixer*. He informs us (p. 41) as follows:

"There are many kinds of fixers—oil of vitrol, green vitrol, blue vitrol, salt and lime, gypsum, &c., may be used; but some of them at all times, and in some cases all of them, have the fault of costing money. A substitute which costs nothing except labor, is therefore to be sought for. Such exists in cinder siftings, charcoal dust, good black earth, peat or bog mould, rotten saw dust, leaf mould, black mud from ponds, bottoms of wood stacks, soot, brick dust, burnt clay, &c. Some or all of these may be had in most places."

Under the head of *Waste manures of towns*, there is very little applicable to this country. The waste from sugar-houses has not been collected as far as I know for manure, but the spent ashes of soap boilers in the city of New-York, is a saleable article, and is sought for by farmers of the surrounding country. Tanner's bark is abundant in some parts of the country, and is generally neglected, because by itself it will not decompose or rot. But when mixed with animal and vegetable substances which will ferment, tanners' bark will undergo the same process and become soluble, and be converted into a fertilizer.

Under the head of *Local waste*, Mr. Hannam treats of peat, sea-weed, ashes, fish, clay, marl, chalk, sand, &c. None of these are entirely neglected in this country, though some of them might be used more extensively, or to more advantage. Peat has been sparingly used, but its application as a fertilizer in compost is becoming more general. The value of sea-weed, ashes, and fish, is well known on the sea-coast, and these articles are by no means neglected. Clay also is used to render sandy soils more retentive, and sand to make stiff clays more friable. We have marl, but no chalk to add to soils deficient in lime. The shell marl of the Southern States has been neglected, but the experiments of Mr. Ruffin have brought it into notice, and it is producing utility in restoring some of the worn out lands of Virginia. The marl of New-Jersey, found in the green-sand formation of that State, is extensively used there, and has been the means of greatly increasing the value of land. The white calcareous marl found in Ulster and Orange counties, of New-York, has not been brought into use, probably from the difficulty of raising it from the places of deposit in low and wet bogs; or because fertility in those grazing counties was so much easier and so much more cheaply produced by gypsum. A substance called marl has recently been employed in Rockland county, of this State, derived from the debris of the sand-stone rock at Nyac, (geologically the old red sand-stone.) What the ingredient is, which in this sandy marl causes fertility, has not been chemically ascertained. But in the green-sand or Jersey marl it arises from potash, which exists in it to the amount of ten and twelve per cent.

There is much in this treatise on waste manures, to

make farmers think and act for themselves. Further details would burthen the reader, and trespass upon the pages of the *Cultivator*, but we cannot refrain from giving the concluding paragraph, in which Mr. Hannam recommends to his countrymen to husband their own resources, in which we cordially agree, and think the advice would be useful to American farmers.

"It has been shown that, by a proper economy of manures which are now wasted or neglected, we may *increase the production, and decrease the cost of food; that our farms, our towns, and particular localities*, are sources from which an abundance of these manures may be obtained; and that they have been made use of, in some cases, with eminent success, and may, by the use of proper means, be employed in other cases with equally beneficial results. It remains, therefore, for us to hope, that the suggestions which have now been offered on their economy, may not be altogether fruitless; but that the same energy of spirit which induces the agriculturist to explore the caves of India, and the battle-fields of Europe, the *coasts of Africa, and the islands of the Pacific*, for the elements of fertility, and which carries the manufacturer to the plains of Saxony and Australia for the materials of our garments, will lead us to cultivate *our own resources*, and make use of the vast stores which we possess, of the *raw material* of the bread of the people." (p. 113.) A PRACTICAL FARMER.

☞ The above work has been republished by Cary & Hart, booksellers, Philadelphia, and may be had at the bookstores. Price 25 cents.

NOTES OF A BOTANICAL TOUR—No. II.

Mr. TUCKER—In my last, after ascending the Cumberland Mountains, Tennessee, which are at that point (on the road between Nashville and Knoxville,) thirty miles across, I made some remarks on their fitness for sheep. In continuation I will give you some extracts from my journal:

April 15.—Frost last night. Continued on the mountain, going up and down hills and along ridges, having occasionally a glorious view of distant mountains, until I arrived at the Crab Orchard, at the foot of Spencer's Hill, or rather mountain. This is one of the highest points of the Cumberland range, a mountain raised on a mountain. It was about 3, P. M.; a clear fine day—went on the highest peak where, seated on a rock, I had a fine view of mountain, plain, and river. The *Rhododendron*—laurel of the south—and *Kalmia latifolia*—ivy and calico bush of the south and laurel of the north, grew in the clefts of rocks at the summit, accompanied with several vacciniums, (huckleberries.) Here also, were the showy flowers of the Ladies' Slipper, *Cypripedium acaule*. Growing on the loose rocks at the foot of the hill, was the true *Phacelia bipinnatifida* of Michaux. Its bright blue flowers are quite pretty, but when handled the plant emits a rather disagreeable odor. On the western part of the Cumberland mountains, met *Robinia hispide* (honey locust) in flower, and afterwards saw it frequently on the Allegheny mountains, near the Warm Springs, and other places. I should have mentioned that beneath a ledge of rocks near the summit of the hill I found a new species, the *Streptopus maculatus* (nobis.)

16th.—Left my kind host about 10, A. M., and at the distance of five or six miles called to see a fine waterfall of about 90 feet perpendicular. After the water falls it descends along a deep gorge among the mountains. At the distance of 11 miles from the Crab Orchard, arrived at the eastern foot of the mountain, and soon drove into a fine farming section, and stopped at a house kept by an old revolutionary soldier, who was the first person I met in the state, who understood wherefore I was collecting plants. He informed me that about 20 years or more before a botanist, an elderly man, had spent several days at his house, from which he made several excursions to collect the plants of that neighborhood. It was probably Lyon, an English botanist, who made his headquarters at Ashville, North Carolina, who is said to have made an excursion of some weeks to the Cumberland mountains, shortly after which he died, as was supposed, from a cold taken in his excursion. He was buried at Ashville, and his collections and papers fell into the hands of those who valued them not and were lost. I met with but few before or afterwards, who had the least idea of the object of collecting specimens. The chief end and aim of most persons is to obtain property, and they are puzzled to contrive how money can be made from a dried plant, a shell, an insect, or a mineral. "What is the use of a dried plant or flower?" "It must be to make medicine!" How often I have been told—"You are getting these to take to the north and make medicine to send back and sell to us." "You must be well paid for being to so much trouble and taking so much pains." Another quite common opinion was, that I was collecting them "to print calico."

17th.—Passed through the village of Kingston to Mrs. Lucy's, 20 miles from Knoxville. Roads muddy from a heavy rain last night. People have just finished or are still engaged in planting corn. Shortly after my arrival, four young men, travellers on horseback, came in who, according to the usual southern custom, ride all day without stopping to dine or feed their horses. Horses will do well, and keep in good condition, under such treatment, as I can testify from experience. At Knoxville the landlord told me that I would find a German botanist at Dandridge on my route to the Warm Springs in North Carolina; and on the 19th, through mud, rain, and cold, over hills and rocks, I came to Dandridge, a little village among hills and rocks of limestone, on the French Broad river. Dr. Rugel, the botanist, was not at home nor did he arrive until next day towards night, when he came in loaded with plants. We were soon well acquainted and exchanged specimens. He was a real German student, careless of his appearance, very industrious, and the best prepared and equipped for collecting and preserving specimens of any person I ever met. Still his knowledge of American plants was very limited. I soon agreed to spend several days at Dandridge, and then we would make an excursion to the Smoky mountains, whose summits were in full view about forty miles distant. On the rocky lands of the French Broad, found *Philadelphus hirsutus*, (syringa,) *Viola tricolor*, *Arabis*, a species lately described by Mr. Sullivant; *Sisymbrium canescens*, *Chœrophyllum taintureii*, *Hydrophyllum macrophyllum*, *Meconopsis dephylla*. I went about five miles from Dandridge down the river, and obtained an Indian plate of limestone (about the size of an ordinary dining plate) with scollop edges. It was found a short time before in a small mound beneath the head of an Indian skeleton about six feet long. The back of the skull rested on the plate with a very rich square piece of lead ore by its side. The field containing the mounds had just been planted with corn and was part of a rich alluvion at an elevation sufficient to prevent its being overflowed by the river. Yet time was, within a comparatively modern period, when it was all beneath the water, since the ground was strewn with as well as contained, beds of numerous shells mostly of one species, the *Io spinosa*, which is now found living in the French Broad, but is by no means as common in a living state as it must have been at a former period. Not far distant from the small mound containing the skeleton, is a large conical mound, hollowed out at the top, apparently for the purpose of containing warriors, from which they could fight with greater security, or as a place to which they might retreat. At the distance of a few rods, is a large excavation in the ground, from which the earth to form the mound was taken. I saw the remains of several sketetons, male and female, which had been plowed up, and the person who tilled the field told us that more or less of them were plowed up every year. They are contained in small mounds which were scattered in every direction over the field. Fragments of Indian pottery were also common. Extending across both the upper and lower end of the field, are the remains of ancient ditches. The afternoon that I visited this interesting spot, was warm and sultry, and the person who accompanied me (Dr. Hill) was in a state of ill health, so that we were unable to give the place a very thorough examination.

S. B. BUCKLEY.

West Dresden, Yates county, N. Y, 1845.

NOTES OF CONNECTICUT FARMING.

Mr. L. Durand, of Derby, Ct., informs us that he made, during the past winter, a short tour of observation through some of the towns of his section. From his notes, with which he has favored us, we give the following extract:

"In the westerly part of the town of Watertown, is the residence of Stephen Atwood. His farm lies on high ground, is somewhat rough; but is dry, and very healthy for sheep, of which he keeps a flock. His sheep are pure Merinos, and have been kept so from the commencement of his wool-growing. The consequence is, his sheep command a ready sale at large prices. He exhibited some of his flock at your State Fair, at Poughkeepsie, one of which, a buck, he sold to the Messrs. Morrell, and another to some Vermont men—obtaining for the latter, the price, (I think,) of $50.

"Mr. Atwood's wool is not as fine as some I have seen, but it is very compact on the sheep and of good length. I was struck with the perfect evenness of the wool on the sheep—it had the appearance of having been evenly shorn. On making inquiry of Mr. Atwood as to the quantity per head his sheep would shear, he said the flock would avarage six pounds of clean washed wool. He further said he had not used a buck for the last ten years, that would not shear annually, eight pounds. This shows what can be done in the way of wool-growing, if the right system is pursued. Mr. Atwood has one buck among a lot of others, which is the handsomest sheep I ever saw. His body is heavy and compact, legs short, neck short and well set on, so that every time he stepped, I noticed he drove the wool on the shoulder up against the horn.

"In the easterly part of this town, (Watertown,) I called on Jacob N. Blakeslee, another noted wool-grower. His flock consists, I believe, of about 350, and produces perhaps the finest wool in the state. His sheep are not so large as Mr. Atwood's, but yield finer wool, which commands a more ready sale in market. His farm is not as healthy for sheep as Mr. A.'s, but his sheep will grow, he says, till they are five years old, and will then shear five pounds of clean washed wool, very fine and clear from gum, and of course will not waste as much as other wool in manufacturing. Mr. Blakeslee sends his wool to Lowell every year, and gets such prices as enable him to persevere in raising fine wool; and indeed I believe that the only course which the eastern wool grower can take for profit is to grow the finest wool possible, and at the same time increase the weight of the fleece. Mr. Blakeslee also exhibited some of his sheep at the Poughkeepsie Fair, and sold some to the Messes. Morrell and other wool-growers at good prices. He too, I think, has kept his sheep quite pure in the Merino blood. I hope the example of Mr. Atwood and Mr. Blakeslee will induce many other farmers in our state to persevere in raising good sheep and fine wool.

"The farmers here raise good cattle. At Mr. Atwood's, I saw a splendid red bull, one of the finest I ever saw—his blood Devon and native.

"In Watertown, particularly on Mr. Atwood's farm, I noticed a plan of building fences which answers well, and the farmers say it prevents sheep from getting out of the fields. It consists of a wall about three feet high, in the same shape of a worm fence, a heavy stone being placed on each corner, and on the top of this four heavy rails. It makes a heavy, stiff fence. But I noticed that in building this kind of fence, not more than half the stones were cleared from the fields. My plan, I think, would be to make heavy, whole walls; say four feet wide at the bottom, and four or five feet high. By making fences of this kind, the fields might be well cleared of the surplus stones and the ground left in a good state for cultivation.

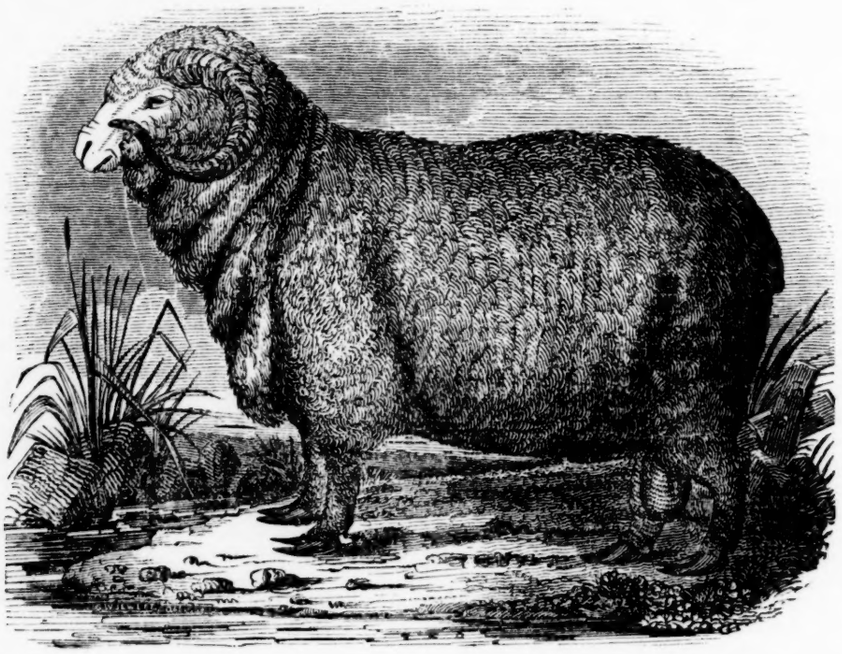
"I also visited the towns of Waterbury and Naugatuc. Waterbury is a large manufacturing town, and here almost every kind of article is made which yankee minds can conjecture. It is the largest manufacturing town in the valley of the Naugatuc, and the most thriving, with the exception of Birmingham, in Derby, which lies at the junction of the Naugatuc and Housatonic rivers, and at the head of water navigation. I do not know where farming can be made more profitable, than in the vicinity of these flourishing manufacturing villages. A home market is what the farmer wants, which is always better than one at a distance. In these villages he can always find a ready market for his produce, and generally good prices. Thus, pork in Waterbury, the past winter, has brought a better price, and had a more ready sale, than in New Haven, one of the capitals of the State; though a smaller amount would furnish the market every day. Naugatuc is also a flourishing manufacturing town; with some spirited farmers. The towns of Prospect and Cheshire, are devoted to farming. The former, is a small, hilly town, situate on high land, and the farmers to correspond, take several copies of the Monthly Visitor, and Cultivator. In Cheshire, some twenty copies of the Cultivator are taken, and the farmers have a good soil to cultivate, and are quite spirited. I am aware that the winter season is not as good a time for taking notes on farming, yet there is always something new to be learned, if people are willing to learn."

BE DEFINITE.

Mr. Tucker—I have, from the impulse of the moment, decided to send you a *little lay* sermon, upon the importance of the brief words that compose my caption. You are indebted for this favor, to the vexation I have this minute experienced, while engaged in reading, for my gratification, on a favorite subject, viz: *good cookery*. I may as well say, here, that I am particularly fond of choice corn bread, or as the yankees call it *johnny cake;* and I desire also to have it "twice alike," or in other words, always the same, and that same *very good;* but it has been my fortune to occupy quarters for many years, where the mistress of the house presides both at her pantry and her table, and she scouts the idea of being *definite*, or of doing things *exactly* by rule; hence her *johnnys* are *never* twice alike—the *good* are "very good," the *bad* "too poor to give the pigs." I was reading, as I have premised of gastronomy, in one of the daily newspapers, and an article headed "choice corn bread," "directions for making, &c.," met my eye,—"Ah ha! thought I, now will we have a touch of the delicious *all* the time, hot corn bread, every day quintescently light, and always the same. So I began to read—"Take as much corn meal as you wish to cook, scald it well, stir it thoroughly, mix it to the consistence of batter, with milk; the more you mix it the better; add an egg, one teaspoonful of saleratus, a tablespoonful or *more* of lard, mix thoroughly, and bake." On a second reading, I looked as I am wont, to the *practical* part, prefacing it with "is this just the thing, let us see:" "Take as much corn meal as *you wish*"—ah, the jackanapes, I could pommel you with right good will,—"as much as *you wish*"—suppose I wish 1 quart, or up to 10, or any other number; all the same, eh? 1 teaspoonful of saleratus and 1 egg—all right for 1 qt. 2, 3 or 10!! I'm done up—the RALE THING has vanished. Why was'nt you *definite*, you ninny? "Then mix it with milk to the consistency of batter." Are there no *degrees* in the "consistency of batter." Would one qt. or 3 qts., make some *one* of these degrees? Why did you not say how *much* meal and how *much* milk, that some benefit might have come of your knowledge? Now, Mr. Editor, I have a vast many times had trouble with these "point no point" writers, and lost the good I love to enjoy, just because they do things by *halves;* they will tell you something as particular as a "teaspoonful of saleratus," and others, perhaps of vital importance, are left for conjecture, and that too, in cases where they profess to be giving you a *receipt*, that is, special direction for preparing the compound.

How much, sir, every where, and even in your own excellent paper, is left undone, in this particular; how many mistakes would be avoided while attempting to pursue directions,—how much disappointment prevented,—how much positive good be wrought and success insured, if writers were *definite*, where now occurs a dispiriting failure, consequent upon pursuing, *half informed*, the various plans of benefit and improvement concocted by your correspondents and offered in your colums.

Oneida.



MERINO BUCK "VERMONT HERO," *owned by Mr.* A. L. BINGHAM, *of Cornwall, Vt.*—(Fig. 72.)

MR. A. L. BINGHAM'S SHEEP.

As we have remarked in another place, we had not an opportunity of seeing this animal; we are, however, assured that the cut is a good likeness. Mr. Bingham says "the portrait is no flattery." He was bred by Tyler Stickney, of Shoreham, Vt., and is brother to Mr. Jewett's *Fortune*. The sire was bred by Hon. William Jarvis, and the dam was from the flock of Andrew Cock, Esq., Flushing, Long-Island. She was owned by Mr. Stickney, and it is said was an extraordinary sheep, both for constitution and wool—"the weight of her fleece," (says Mr. Bingham,) "running from five to seven pounds." We are informed that she died in 1843, at the age of fourteen. Mr. Bingham states that the weight of this buck on the 11th of April last, was 150 pounds; that "the weight of his first fleece was 4 pounds 15 ounces, the second 8 pounds 12 ounces, the third 12 pounds 8 ounces, the fourth 13 pounds." The fleece of the present year was not shorn when this statement was written. He will be, as is stated, five years old on the 22d day of July, 1845.

Mr. Bingham informs us that he has lately purchased of Joseph I. Baily, of Rhode-Island, "forty-four sheep, all ewes but two," for which he paid $661, having his "entire selection from the whole flock, consisting of 250 full blood Spanish Merinos." This stock, he says, "were imported by James D'Wolf and Paul Cuff, in 1812 or '13. They were bought," continues Mr. Bingham, "by his [Mr. Baily's] father, at the wharf, and he tells me they have been bred pure ever since—always breeding from bucks of his own raising. His flock is the most uniform of any I ever saw; remarkable for size, low on the leg, heavy boned, wide chested, large and thick necked, considerably ruffled, heavy fleeced and dark colored on the outside, the wool fine, thick, and long in the staple." The weight of the fleeces of Mr. Baily's breeding ewes, over a hundred in number, Mr. Bingham says, "averaged five and three-quarter pounds per head. His lambs from these ewes," says Mr. B., "averaged six pounds five ounces per head, all well washed wool."

Mr. Bingham thinks the weight of wool was much increased by Mr. Baily's somewhat peculiar mode of management. "He selects his sheep in the first place into small flocks, of equal size and strength, taking special care to keep them fat the year round. He told me that he never allowed any snow or rain to fall on them from the middle of November till they are turned out to grass in the spring. I believe a sheep will shear from a quarter to half a pound more wool by being kept sheltered from the storms, than they will by being exposed to all kinds of weather. Many persons will keep them out at a stack all winter, with nothing to shelter them from the storm; and they not only sustain a great loss of wool and flesh, but not unfrequently a great loss of life. Mr. Baily tells me he feeds grain to his sheep but two months in the year—a month when they are first put to hay, and the last month before they go to grass. His lambs are dropped between the 15th of April and the first of June. To avoid the danger of the sheep running over the lambs when housed, they are kept in very small lots."

DURABLE FENCE—BARNS.

MR. L. TUCKER—Every farmer should have his lands well fenced. All will admit this, and yet how few have fences that can be trusted. In this climate, where frosts prevail, fences will need repairs every spring if built in the ordinary way; and it is one of the greatest vexations that farmers have to encounter, the inefficiency of their frost-shaken fences. The experience I possess in relation to the erection of permanent farm fences, has been considerable. A stone wall, which, for some farms, is the cheapest and most durable fence, should be constructed by first digging a trench eighteen inches deep by two feet in width. This should be paved with oak or yellow pine boards; and upon this commence laying the foundation, not with small stones that will work out, but with large flat stones that will lay well. It is likewise necessary to lay the stones lengthwise across the wall, which will bind and strengthen it. A wall put up in this manner will stand the heaving influences of frost much longer, and maintain its even and straight appearance, in which consists the beauty and efficiency of a wall, to amply repay the extra expense. Every wall should be made five feet high, which is a reasonable security for an enclosure against the depredations of most animals. It is my opinion that the cheapest fence for farms where stones cannot be had, and lumber is scarce and high, would be a fence constructed of cast-iron pickets, the pattern for the construction of which should not exceed one-eighth of an inch for the most part, increasing to one-quarter where the holes are placed for securing them to the iron bars. The bars should be twelve feet in length, cast very light, with holes in them at proper distances for riveting. The riveting process is simple, and

soon done, any blacksmith being able to rivet from ten to twelve pannels a day. To make the pickets as light as possible it is necessary to groove the pattern through in the middle three-fourths of an inch, leaving three inches at the top and bottom solid, excepting the holes where they are secured to the bars. Three feet is length enough for a picket. The expense of construction would be lessened by the use of wooden posts instead of iron; the latter, however, would be preferable. A farm provided with a fence of this material, if kept thoroughly painted, would be fenced, not for a day, but for all time.

I have found the most durable way to set posts and prevent them from being thrown out by frost, is to dig the holes large enough to admit of their being filled up with small stones and lime mortar; the lime prevents decay, and the stones prevent in a great measure the action of frost. It is of the utmost importance for farmers who wish contentment of mind, good neighbors, the enjoyment of their own property, and to be free from vexatious litigation, to put up good and sufficient fences both inside and out.

A FEW HINTS ON BARNS INTENDED FOR HAY.—The The site for these buildings is of the first importance. It should be in the vicinity of the hay field, for in the hot and sultry season it is a saving of time and labor to have them thus located. It should be, if possible, dug into the side of a hill, which will enable you to draw the load near the roof, which elevation will likewise enable you to pitch the hay down. All will admit it is easier. If you have no side hill on which to build, the posts of the barn should be at least fourteen feet high, which will secure ample bay-room, which is very much needed in all hay barns. The opening for putting in the hay should be at the east, as it will be shaded in the afternoon, the time in which most hay is put in. To construct barns for this purpose in the most economical way, I would recommend placing the posts upon the sills at the distance of twelve feet asunder, gird parallel with the sills half way up the posts, then board up by placing the boards lengthwise from plate to sill. For a roof, match the boards close and lay two thicknesses, taking care to break joints. Every barn should be provided with a conductor or lightening rod. An easy method is to put them up in the form of a half circle, stretching along the roof, supported by non-conductors. The fluid coming in contact with either end of the conductor will travel to the opposite end, where it will explode into the air. Yours respectfully,

H. COOKE.

Tivoli, Dutchess county, N. Y., 1845.

SPECIMENS OF SOILS FROM WISCONSIN.

The samples of soil alluded to in the following letter, were handed to Prof. EMMONS, by whom they were subjected to an analysis, the results of which, with accompanying remarks, will be seen in the subjoined article. The Professor's remark that "it would be easier to make suggestions on the spot than at a distance," is obviously correct, and should always be borne in mind in soliciting information on such subjects.

Geneva, Wis. Ter., May 27, 1845.

MR. TUCKER—I take the liberty to send you a sample of marl found in this vicinity, and also a small quantity of the soil taken from my farm, both of which I wish to have analysed.

My object is to ascertain in the first place the nature of my soil, that I may be able to apply such manures, if they are within my reach, as will be most likely to facilitate the growth of wheat; and I wish also to know whether this marl will probably be valuable as a manure on such soils as mine; and will charcoal be likely to increase the wheat crop here; and you will confer a great favor by suggesting any thing that would be of service in the cultivation of our great staple.

Such lands as mine in their present state, will yield about twenty-five bushels to the acre, with good cultivation, without manure; but I suppose the average is not over fifteen bushels, under our present poor management. I wish to see what can be done on our new lands in increasing our yield of wheat, and intend to make my experiments with care, and keep an exact account of expense, that I may determine how well we may cultivate our new lands and make it pay.

You will oblige me much by assisting me to obtain such information as will enable me to start right in this matter. C. M. GOODSELL.

TO C. M. GOODSELL—I hereby acknowledge the receipt of two specimens, one of soil, and the other what was supposed to be marl. I have analyzed both, and below I give you the results. The soil is extremely fine, and very different in this respect from any of the soils of New-York or of New-England; as the latter are always coarse, or at least when compared with that from your farm. It is of the color and appearance of ground emery; it will all pass through the finest sieve. When examined under the microscope, a few white grains of quartz may be seen, the largest of which are about the size of mustard seed. If this is a sample which represents the soil of your farm, its fineness is its most characteristic property. It will lie too compactly after it has been cultivated for a few years longer, or when its vegetable matter is expended, and will require more strength of team to plow it than coarse soils. It is evidently silicious, and seems to be a fine sediment which was deposited far from land and in a deep sea.

Analysis—100 grains gave the following result:

Water, ...	5·00
Vegetable matter, ...	9·50
Silex, ...	80·21
Carbonate of lime, ...	1·00
Phosphate of alumine and lime, ..	0·50
Protoxide of iron and alumine, ...	3·62
	99·83

The so called marl is really *tufa*, and is composed of 97 per cent. of carbonate of lime. Some parts of it are entirely soluble in warm muriatic acid; in others, there is a sediment of silicious matter. It is to all intents and purposes a pure carbonate of lime, and may be used for quick lime for mortar, water or agricultural purposes.

The questions which are put in your letter are not easy to answer, inasmuch as the composition of the soil is not defective. The way to improve it, as it appears to me, is to add coarser materials to it, that is, improve it mechanically—as fragments of old brick, pottery, plaster, broken stone, etc.; also coarse charcoal, bones—a good plan would be to add the broken tufa without burning. I feel that it would be easier to make suggestions on the spot than at a distance, for after all local circumstance must greatly modify the treatment in any given case.

E. EMMONS

GRADE CATTLE.

MR. TUCKER—I noticed in the May No. of your paper, a communication relative to cross breeds of cattle. Presuming that my experience in that important branch would be interesting to some of your readers, I have taken the liberty to address you on that subject.

In the year 1840, I possessed a cow of the old fashion breed; (I am unacquainted with the technical name,) and desiring to improve it, I drove her to a neighbor who possessed a full blood short-horned Durham bull. In the spring of 1841, she had a fine female calf. This calf grew up, and at three years old had a calf of about three-quarters Durham. Last fall, or early in the winter, this half bred had another calf. About four weeks after, we commenced milking her: the first week she made 8 lbs. of butter; the second 7, the third 9; the fourth 8—making in all 32 lbs. in four weeks. She was fed on common hay, and about three pints of wheat bran a day. She had no particular care taken of her, as to currying, &c. She is a kind gentle beast, not very particular as to what she eats; and every way calculated to leave the impression as being a good and profitable breed to the farmer. A SUBSCRIBER.

Coyemans, May 13, 1845.

FARMERS' MOTTO.—Contrive to collect cash—and keep it.

THE CULTIVATOR.

ALBANY, JULY. 1845

TO CORRESPONDENTS.

COMMUNICATIONS have been received, during the past month, from John Clark, Alex. M'Donald, A Farmer's Wife, S. Tillotson, D. G. Mitchell, C. N. Bement, E. Comstock, Thomas Close, Isaac Dillon, S. B. Buckley, Woodside, Grazier, C. Butler, A. F. W., O. P., J. P. Norton, J. Girdwood, Barclay White, J. R. A., J. P.

We are under obligations to GREELY & M'ELRATH, publishers, New-York, for Part III. of Dr. Lardner's Lectures on Science and Art—To Messrs. VALK & Co. Flushing, for Catalogues of Roses, Pelargoniums, &c. cultivated at their Exotic Nursery and Horticultural Gardens; (see advertisement)—To LEA & BLANCHARD, publishers, Philadelphia, for vols. 3 and 4 of the "Exploring Expedition"—To LEWIS GOMPERTZ, Esq. London, for nine numbers of the "Animal's Friend," and a vol. entitled "Moral Enquiries"—To L. DURAND, for Premium List of New-Haven Co. Ag. and Hort. Societies.

☞ The continuation of Mr. ROBINSON'S Notes of his Tour, were forgotten till too late for this month.

☞ We have received a letter *unpaid* from Jonathan Morgan, Portland, Me., accompanied by diagrams, designed to show that Lawrence's Improved Buckle, spoken of in our May number, is "no new thing, but has been in use for a great length of years." He is informed that there is no similarity between *his* buckle and Mr. Lawrence's.

EGYPTIAN BARLEY —A correspondent at Laurens, S. C. (Dr. W. R. we believe,) wishes to know where this variety of barley can be obtained. Who will furnish the information? We shall be glad to hear from our correspondent, on the subject he mentions, or on any other of interest to our readers.

QUACKERY.—JOHN CLARK, of "Flat Rock, Shelby county, Indiana, Noble township," sends us *unpaid*, a long and almost unreadable letter; the purport of which, so far as we can make it out, is to inform the public that he thinks he has found a cure for milk-sickness, and is *willing* to "sell a knowledge of it to all that wish to purchase, who appear in *person*." In a postcript he informs those who wish to have any communication with him, to be sure and *pay their postage*.

☞ "A FARMER'S SON," (Watertown, N. Y.,) will accept our thanks for his good wishes. We should be glad to receive any agricultural facts from the county of Jefferson, which we know can boast of some as good farmers as any other section. The "first attempt" of our young friend, certainly needs no apology. His opinion in regard to the usefulness of well-conducted agricultural papers is undoubtedly correct.

TRANSMUTATION.—We have not room for the well-written communication of our respected correspondent, C. W. of Maryland. He has not probably read the able discussions which took place on this subject, some years ago in the Virginia Farmers' Register, American Farmer, Genesee Farmer, and The Cultivator, or he would not suppose that the disbelievers in the transmutation of wheat into chess, "mostly rely upon ridicule," to support their side of the question. On the contrary, they rely on the unchangeable laws which govern the growth of plants, from which there never has been, to our knowledge, a well-authenticated instance of departure, and that there never will be such an instance, we have the assurance of Him who provides "the seed-time and harvest," for He informs us that "what a man soweth, that shall he also reap." Our correspondent thinks "with Prof. Lindley, that further observations are required to settle this question;" and "that if one kind of grain could be made to produce another by experiments so performed as to be free from fallacy, the question would be at once settled." No doubt of it. "But we may not be able to succeed in this experimentally without a vast deal of time, labor and expense." If our correspondent is disposed to experiment in this matter, we will agree to pay all expenses incurred, and pay him a premium of $50, if he succeeds in showing that chess can be produced from pure wheat—with this single proviso, that he shall report his experiments for the benefit of the public, in case of his failure to demonstrate the doctrine of transmutation.

RIBBON HOUSES.—In our Feburary number we spoke of this kind of houses. We have received a letter from Mr. THOMAS J. LEWIS, in which we are informed that the plan is coming into use in Massachusetts, with considerable approbation. That "two men can build a two story-and-a-half house, twenty by thirty-five feet, in five days; and by men too, who have but little knowledge of the carpentering business,—making a house much handsomer, stronger, warmer, and above all, at one-half the usual expense."

MONTHLY NOTICES.

IMPORTED BLOOD HORSE.—Mr. C. T. ALBOT, of Westernville, Oneida county, N. Y., who has lately returned from a visit to England, brought with him a fine English blood horse, called *Consternation*. This horse was bred by Matthew Hornsy, Stiltenham, Yorkshire, England, and is said to be of the best racing blood. In 1844, being then four years old, he won a purse of 100 sovereigns over the York course, beating the noted horse Phœnician. From an accident to one of his legs, he has not since been run. Consternation is a large horse, for one of his age and breed, with good bone, clean limbs, and muscular quarters. When we saw him he was in low condition from the effect of the voyage, so that his appearance was of course less favorable than it will be after he shall have had an opportunity to recruit. From the pedigree of this horse, it appears that he inherits the blood of some of the most celebrated stock ever produced in England—such as Hap-Hazard, Highflyer, King-Herod and Flying-Childers. We are no advocate for *racing* horses, but we believe an occasional dash of the pure blood of the race-horse is of advantage to our stock for the carriage and road. Practice, we think, has fully proved this, both in England and this country. We invite the attention of connoisseurs to Mr. Albot's horse.

NOVEL RAT-TRAP.—We saw it stated in a newspaper several years ago, that a rat had been caught by an *oyster*. We hardly gave credit to the story then, but have lately seen proof that similar things are sometimes done. A man brought us a rat caught by a *clam*. We were shown the rat, *trap and all*, so that there is no doubt about it. We were told it was the second rat which had been so caught in the course of a few days. The *operation* of the trap is this—the clams lay in a cellar—occasionally one would die, and when the shell opened, afforded the rats, we suppose, a delicious morsel. The *live* clams would also sometimes open their shells, and into these, as they were searching over the heap, the unwary rats dropped a foot, which was at once grasped and held firmly in this animal vice.

MISTAKE CORRECTED.—A mistake occurs in the last or fourth volume of the Transactions of the New-York State Agricultural Society, which may lead to a serious error if not corrected. In speaking of the use of *whale oil soap* on page 310, for "*half a pint* of soap added to *half a pint* of water," read, *half a pint of soap to half a* PAIL of water. Unless the degree of dilution approaches the latter, vegetation may be destroyed by the acridity of the soap.

AGRICULTURAL ADDRESS OF COL. A. MCDONALD, BEFORE THE AGRICULTURAL SOCIETY OF BARBOUR COUNTY, ALABAMA.—In the *Southern Shield* we find a copy of this production, which is highly creditable to the author, and, we should think, well calculated to stir up the people of that section to the improvement of agriculture. Besides many other matters, Col. McDonald compares the present state of agriculture at the south with what it

was forty years ago, by which it is seen that within that time many improvements have taken place at the south, though, as is remarked, there is probably room for greater advancement. The great improvement in the construction of the plow is spoken of, and a pretty confident hope expressed that the day will come when that implement "will be seen to pass and repass through our fields propelled by steam."

LARGE EGG.—Mr. JESSE BUEL has left at this office a hen's egg which measures six inches in circumference one way and seven and a half inches the other way. Has any body's hen laid a bigger one?

GAPES IN CHICKENS.—J. H. D. LOWNES writes in the *Southern Planter* as follows:—"My residence was proverbial for gapes, but by mixing the dough with chamberlye and baking the bread, it is banished. A tea-spoon full of urine given to a chick in the first stage of the gapes, will cure it; but begin with it, and they will never have it, with good care."

ADVERTISEMENTS.—The reader is referred to our advertising department for an interesting statement from Mr. BOMMER in relation to his patent method of making manure.—If any of our farmers are disposed to remove to Virginia, they will find a favorable opportunity for the purchase of farms, by noticing the advertisement of Mr. GOUVERNEUR, who, it will be seen, offers for sale a portion of the estate of the late President Monroe.

POTATOE ROT.—Some person has sent us a number of the *Honesdale* (Pa.) *Democrat*, containing an article on this subject signed "CHEMICO." In regard to the potatoe rot, he says—"Be kind enough to inform them [the farmers] that it is caused by a want of the alkalies." * * * "Please tell them if they would save their potatoes, and raise larger crops, they must supply lime," &c. He closes by advising farmers who read his article, to—"inform their neighbors of it, and let us hear no more of injury sustained from rot in the potatoe"! Many of our readers will doubtless recollect that we have recorded several instances where lime had been used, in various ways, without any effect to preserve the potatoe.

CENTRE DRAFT PLOW.—We see it stated in the papers that Mr. John Mears, jr., attached to the house of David Prouty & Co., Boston, sent one of the best patterns of Prouty & Mears' "Boston Centre Draft Plow" to the Emperor Nicholas, of Russia. About a year has elapsed, and a day or two since Mr. M. was gratified by the reception of a note from his Excellency, M. Bodisco, the Russian Ambassador at Washington, informing him that his plow has been received, and its usefulness acknowledged, and that his imperial majesty, apprreiating his intentions, had ordered him to present to him "the great gold medal," bearing the effigy of his Majesty, and the inscription "*Præmia digno.*" The medal is a magnificent one, of the purest gold, weighing almost a pound.

FINE SHEEP.—We find in the Ithaca Journal, a notice of the fleeces of Mr. J. R. Speed's sheep. His flock is said to be about 60—half of which are full-blood, and the remainder grade Merino. His stock buck is said to have sheared 10 lbs. 4 oz., of one year's growth, and several of the full-blood ewes sheared over 5 lbs. per fleece, well washed.

ANSWERS TO INQUIRIES.

SWEET BRIER. D. F. B. (Peru, N. Y.)—It is said, we know not with how much truth, that it takes two years for the seeds of this plant to vegetate. Are you not rather too sanguine in the opinion that the sweet brier is capable of being made into a hedge "that will equal the thorn, and in many respects supercede it?" It may be worth an experiment, but from our observation it is not sufficiently durable and strong, does not grow thick enough, becoming too open by the dying of the old stems.

GRAPES INJURED BY ROSE-BUGS.—"*A Yeoman of Massachusetts.*" Syringing vines with soap-suds, in such a manner as to shower the bugs with some force, we should suppose would cause them to disperse. It is an insect that does not prevail extensively over the country, and we find no other accounts of its having attacked the grape vine.

CAST-IRON ROLLERS.—In answer to the inquiry about cast-iron rollers, in our last, the New England Farmer says, "They can be obtained at J. BRECK & Co's Agricultural Warehouse and Seed Store, 52 North Market street, Boston, where they have been for sale for years. Price from $20 to $25. Also, stone rollers, at from $12 to $18.

THE WEATHER AND THE CROPS.

From various points of the western part of the country, we hear very unfavorable accounts of the appearance of the crops. The months of March, April, and May were remarkably dry, accompanied by high winds, and several unusually cold turns. From Ohio, we have information from Cincinnati, Dayton, Columbus, Chilicothe, Zanesville, and Coshocton. The fruit was nearly all killed by frost in the vicinity of these places. The wheat was much injured by the high winds and drouth; and in many instances suffered much from frost.

Mr. George Wolfe, of Coshocton county, writes us under date of June 2d, as follows:—"We have had three or four frosts lately, which have materially injured our wheat and corn crops. In fact, the frosts and the previous drouth, have almost destroyed the wheat. I do not think it will average one-third of an avarage crop. Many farmers are pasturing their wheat fields."

The frosts which occurred here the last of May and the beginning of June, seem to have been much more severe in some other sections. We hear of much damage having been done at this time in Ohio, Michigan, and Illinois. The Ohio Cultivator, published at Columbus, under date of June 1, speaks of a frost on the night of the 29th of May, which "cut off nearly all the corn, and with it, almost destroyed the hopes of the farmers." It is added—"The prospects of the farmers in this region are gloomy indeed. We have spent the last week in traveling around, and can truly say we never saw crops generally so unpromising."

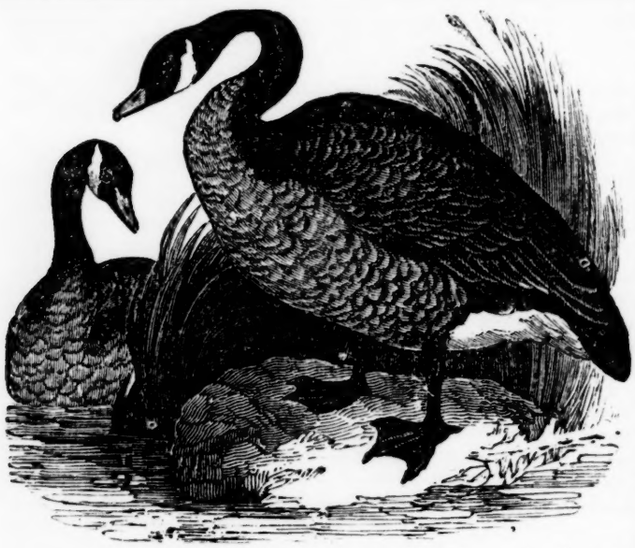
We have heard no particular complaints in regard to wheat from this state, or Pennsylvania. Grass in this vicinity is good; but south and west we hear that "old meadows" are light.

PROSPECTS FOR CROPS IN ALABAMA.—A. MCDONALD, Esq., of Eufalla, writes under date of May 19, that crops in that section suffered much from drouth, and in some degree also from cold, during April and the first part of May. A rain, however, occurred on the 11th of May, which was of much benefit. A larger proportion of the *provision crops* has been this year planted in that section than formerly.

FARM OF THE HON. J. C. CALHOUN.

In the *South Carolinian* we find an account of the farm of Mr. Calhoun, by a committee of the Ag. Soc. of Pendleton, S. C. It is spoken of as being naturally very superior, yet it is added, "to its proprietor clearly belongs the merit of very superior management." The details of the farming operations are not given by the committee, as they were so unfortunate as to make their call during the absence of Mr. Calhoun. It is stated that the two great evils with which the farmers of that section have to contend, are the washing of lands by rains, and its exhaustion by continued cropping. Mr. Calhoun it is said has found an effectual protection against the former in the use of "guard drains," and against the latter in the pea crop. The committee say—"The stock on this farm, consisting of horses, hogs and cattle, were of good breeds and in fine condition. The farm houses were sufficiently numerous, and both comfortable and convenient. And this more especially the case with the negro house, which consisted of a building of stone of superior masonry, two hundred and ten feet in length, divided into apartments, with separate fireplaces, sufficiently large for all the purposes of comfort and healthful ventilation.

"The committee, in conclusion, have no hesitation in pronouncing the management upon this farm highly superior. The useful and ornamental have been most happily blended, not only throughout the principal tillage crops of the farm, but also the more refined horticultural operations of the homestead."



WILD GOOSE—*Anas canadensis.*—(Fig. 73)

Naturalists have not entirely agreed in regard to the generic affinities of this bird. Buffon, and most others, call it a goose, but Cuvier calls it a swan. The characteristic differences between geese and swans, are in some cases, however, not easily discovered. The bird is strictly American, not being found, so far as we are informed, on the old continent. From its peculiar habits, it is the most interesting of all the goose tribe. It is seen periodically all over North-America, from the equator to the highest habitable point towards the poles. Wilson says—"It is highly probable that they extend their migrations under the very pole itself, amid the silent desolation of unknown countries, shut out from the eye of man by everlasting barriers of ice!" Twice a year, they traverse this vast extent, amounting to one-fourth of the circumfrence of the globe! Their northern flight is the welcome harbinger of approaching spring; while their return from the boreal regions, on their southward journey, is the sure precursor of winter's reign.

Cuvier describes the plumage of this bird as—"Dark-ash; head, neck, and tail, black-streaked, and throat white; bill and feet black; tail of eighteen feathers."

Within a few years, it has been stated that *white* wild geese have been discovered in this country. Whether these are the *Snow geese*, spoken of by some naturalists, or whether they are a species of swan, we are unable to decide. In their size and note, however, they are said to correspond with the ordinary wild goose.

The wild goose breeds only at the north. Some of their favorite haunts are the shores of Labrador and Hudson's Bay. We have been informed by fishermen and others who have visited those regions, that they are found on the banks of creeks and streams, during the breeding season, in immense numbers. The fishing vessels sometimes send boats and procure their eggs in large quantities.

In becoming domesticated, the wild goose retains for a long time many of its original habits, and is much disposed to return to its natural state. An instance was related to us of a wild gander having been wing-broken by a shot, and caught. His wound healed, but he was so much disabled that he could never fly. He was kept with the domestic geese of the farm, with one of which he finally mated. He remained on the farm many years, and became very tame; yet as the migratory season returned, he always manifested the greatest uneasiness. Impelled by an instinctive desire to fly away, he would wander about, often stretching his wings and pluming his feathers; refusing food, and even leaving unnoticed his domestic mate, to which he generally seemed much attached. If a flock of his former associates chanced to fly over, salutes were quickly interchanged; but the thrilling note of the free ones in the air, in the language of our informant, "seemed to set the poor captive *crazy* for a time, and for a day or two after he would be mute and melancholy." Except during the "flying season," he was very contented.

Wild geese are incapable of propagation till three years old, though the female is said sometimes to lay eggs which will not hatch, at two years old. She seldom lays more than five eggs at a brood or in a season; but these are almost invariably hatched and the goslings all raised. Considerable advantage is thought to result from crossing the wild with domestic geese; but the progeny so produced are hybrids, and, we believe may be said, *never* to breed. This clearly establishes the distinction of species. The mongrels are hardy, grow quickly, get readily fat, and are highly esteemed for the table; at the same time producing a greater quantity and better quality of feathers than common geese. For these properties, they are held in much favor by poultrymen who raise geese for market. We have seen crosses of the wild with the common grey goose, the Chinese, the Bremen, and the large African or Guinea goose. Some of the latter, raised in Rhode-Island, were as fine geese for market at six months old, as we ever saw.

We are indebted to MR. BEMENT, for use of the engraving given above, from his Poulterer's Companion.

LEVEL CULTIVATION FOR CORN.

For any ground that is sufficiently dry and warm to be suitable for Indian corn, we are confident a level cultivation is best. We do not like the common plow for working corn—it not only throws the ground too much into ridges, thereby exposing too much surface to be dried by the sun, but from its pressure on the ground it leaves that portion below the furrows, harder than it was before. On very light land, mere surface cultivation will answer for corn; but where the soil tends to pack too heavy, as it will if there is too much clay in it, we must use some tool that will loosen and pulverize it, or the roots of the corn will be cramped and the tops stunted. A narrow shovel plow, or a tool like a coulter, two or three teeth, according to the strength of the team to use it and the state of the soil, to be set in a proper frame, are best for compact soils. A light harrow and cultivator will be found sufficient on light soils.

We noticed in the *Sommerville Reporter*, Tennessee, an essay on the cultivation of corn, read before the Agricultural Society of Fayette county, by JOHN WARY. Mr. Wray commenced the mode of level cultivation twenty-five years since, and and continues it to the present time. He has found it to answer well. He does not use the plow at all—he simply works his ground over with what he calls a *rake*, which seemed only to mellow and clean the surface. He works the ground so often with this, that the weeds have no chance to get sarted, so that he keeps the crop clean. He does not particularly describe the rake, or tell how it is made. He stated that he has tried this mode of cultivation in comparison with the old mode of using the plow, and that the rake gave invariably the best crop. He does not state particularly; we take it his land is of rather a light character. He plows his land in October and November, six to eight inches in depth, being careful to bury all the vegetation; and plants his corn from the tenth to the 25th of March, laying off the rows four and a half feet each way, and leaves three stalks to the hill. He says—"The reason why some farmers fail in the use of the rake is, that instead of *plowing* their land in the first place, they only *scratch* it, and then, instead of killing the grass in the germ, they wait until their fields get foul and then abuse the rake because it will not perform work it was never intended to do."

WINDGALL.—Windgalls are several little swellings just above the fetlock joints of all the four legs; they seem, when felt, to be full or wind or jelly; but they never lame a horse; the splint and spavin always do. They all three proceed from one and the same cause, which is hard riding, travelling too far in one day, or carrying too great a weight when young.—*Ayrshire Agriculturist*

FARMING IN VERMONT.

In the month of May last, we had the pleasure of making an excursion to the "Green Mountain State."

To one who, like the writer, has been for several years accustomed mostly to the comparatively level surface of a portion of the "great valley" of the west, the physical features of Vermont are striking and impressive. The different geological character of the two sections, forms a wide contrast in their surface and aspect—the primitive region we have lately visited, being, to the traveller capable of appreciating the attractions of nature, much the most interesting. There is, it is true, beauty of surface to be met with in the west—the "rolling" prairie, the shady "openings," and in other sections the dark primeval forests, are certainly beautiful; but the scenery seldom, if ever, rises to the grand and sublime. In the west, the elevated portions of the surface have but little variety; what are called hills appearing to have been formed by gulleys having been washed by rains from a surface originally uniform, leaving the tops of the hills on a general level. Here, the upheavings of the earth have given to its surface an almost endless variation, with elevations of different altitude, from the green hill, whose grassy sides, even in the most sultry heats of summer, are freshened by the ever-gushing fountain, to the hoary mountain, whose lofty summit arrests the career of the storm-cloud!

The natural circumstances of Vermont, mark it particularly as a *grazing* region. Its mountainous surface is unfavorable to the extensive use of the plow and the large cultivation of grain crops; while the richness and permanency of its pastures, the abundance of pure water, and the healthfulness of the atmosphere, show its admirable adaptedness to the rearing of horses, cattle, and sheep. The advantages of water which a hilly or mountainous country affords, are too often overlooked, or not duly valued. We have passed through sections where the farmers, during a drouth of not unusual continuance were obliged to drive their stock miles for water, and even then were forced to raise the water by a slow and laborious process from a deep well. If the Vermont farmers should be placed for a while in such a situation, they would be able to form some idea of the worth of their numerous springs and mountain rivulets.

The time allotted to our excursion was so short as to preclude the possibility of particularly examining a very large portion of the State. Our observations were confined chiefly to the counties of Addison and Chittenden, which are situated on the west side of the principal Green mountain range, bordering on Lake Champlain, and comprising, perhaps, the most fertile portion of Vermont. Under their appropriate heads, we propose to speak briefly of the different subjects to which our attention was attracted.

Soil.—A considerable portion of the soil of this district may be said to be a calcareous clay, often strongly tenacious, based on what geologists term transition or silurian limestone. This is more particularly the character of the valleys and lower parts of the district. The soil of the hills and higher parts, lying above the limestone, has in its composition a larger proportion of sand, and of course partakes also of the nature of the slaty rocks of which the hills are formed. In most cases gypsum operates well on these soils. We learned a remarkable instance of its effects from Mr. Rodman Chapman, of Vergennes. He had some casks of plaster which had been wet in a freshet, hauled out on some barren clay knolls, and spread over the ground. The effect was to clothe the ground with the most luxuriant growth of white clover, blue-grass, and yellow trefoil—a plant or two of the latter having come up accidentally, from which it was spread over nearly the whole field. The sward on the lot, (which we examined,) is still fine, and the product of herbage great.

Cultivation.—As before remarked, the plow is not extensively used in this section of country—the object of farmers being generally to raise only about the quantity of grain and vegetables required for home consumption. It is, however, stated by those best qualified to know, that Addison county produced last year a considerable surplus of bread-stuffs, beyond supplying the inhabitants. Wheat has been less cultivated since 1830, than formerly, owing to the attack of the wheat midge, (*Cecidomyia tritici.*) For the last two or three years, this insect has been diminishing, and a knowledge of this fact encouraged the farmers to sow this grain more extensively last season than they had done for several years before. Spring wheat is the kind generally sown—winter wheat being less certain to yield well. But since it has been ascertained that the injurious insect before mentioned is diminishing, some farmers have concluded to try winter wheat, and we were shown several small lots which were very promising. The Black-sea spring wheat is considered most hardy, and on this account has commonly the preference. Yield, twenty to forty bushels per acre.

Indian Corn is cultivated with success on some of the lighter and warmer soils. On the best lands, and with good cultivation, it frequently yields sixty, and sometimes eighty bushels per acre. We were shown many samples of this grain which were as bright and heavy as we ever saw. Mr. S. W. Jewett has a variety, which, for a northern latitude, we think highly superior. It is a twelve-rowed corn, but has been greatly improved by selection. The cob is small, and completely covered with corn, packed in the closest possible manner. Oats are a sure crop, and produce from forty to seventy-five bushels to the acre.

Potatoes flourish remarkably well, and are of superior quality. The yield is two hundred to five hundred bushels per acre. They are in some instances raised for the purpose of fattening stock, and for feeding sheep and store cattle through the winter. Those who have tried potatoes for this purpose speak very highly of them. Other vegetables are in some instances cultivated for feeding stock. Mr. W. Chapman, of Middlebury, is much in favor of the sugar-beet. He has tried it for store stock, and to some extent for fattening cattle. In February, 1842, he killed a heifer, fatted wholly on beets and hay, two years and nine months old, which weighed, dressed, 838 pounds, and had 135 pounds loose tallow. Mr. C. contends that beef fatted on this root is much more sweet, tender and juicy, than when fatted with meal.

We observed that it is a very uniform practice in this district to manure the ground intended for corn and potatoes very heavily. Where, from the nature of the soil or the dearness of labor, (as is the case here,) it is inexpedient to cultivate much land, we believe this to be the true course. It takes but little more labor to cultivate an acre which is made so rich that it will yield sixty or seventy bushels of corn, or four hundred bushels of potatoes, than to cultivate one that will produce only half as much. We noticed that the manure from stables and sheep-pens was spread very thick over the ground and plowed in with a deep furrow. If it were not for the fact that the quantity of manure used is so great that it is difficult to bury it or mix it properly with the soil, we should say it was plowed in too deep. We are in favor of deep tillage for general purposes; but there are two ways of performing it—deep plowing with the common plow, and using the sub-soil plow in the furrow after the common one. Where the sub-soil is cold and wet, we decidedly prefer using the sub-soil plow. Where the sub-soil is so composed that pulverization and aration are only required to render it fertile, it may be an advantage to break and bring it to the surface by the common plow. We feel confident, however, that in the region of which we are speaking, the sub-soil plow might be used in many cases with excellent effect.

Buildings, Barn-yards, Fences, &c.—The buildings through this district are generally in good repair. Many of the houses are of a superior style—are convenient and well finished, and are sometimes tastefully ornamented with trees and shrubbery. Less care and judgment is generally shown about the barns and outbuildings. In planning and locating these, convenience taste, and economy, seem to have been too often disregarded. The improvident waste of manures from this cause, is in some instances a glaring defect in farm management. Though the land is generally good, naturally, it is not all uniformly so, neither has it been equally well managed; and we saw some fields where

the scantiness of vegetation showed plainly that the soil much needed the manure, which, on those very farms, was wasting away, by various means, from the barn-yard. We are happy to say that there are farms on which a judicious management, strikingly in contrast with the above, is observable. Such an instance was met with in the farm of SETH LANGDON, New-Haven. The admirable neatness of this farm attracts the eye of the traveller the moment he comes within its limits. The barns and sheds are so placed as to form a hollow-square. Mangers are fixed under the sheds for feeding cattle, (the sheep are kept in another place,) water is brought to the yard, and none of the cattle, except the working oxen, are allowed to go out of the yard in winter. They are fed, (all but some of the young cattle,) in the barns at night; and during the day are fed in the sheds, with the poorer sorts of fodder—a place for depositing which, is provided in one corner of the yard. The manure is all received into the yard, which is so formed that none of it can be lost, but is all carefully cleaned up in the spring and carried to various parts of the farm. The stalls, particularly those for cows, were well contrived and neatly kept.

The fences generally preferred are cedar rails and stakes. It is laid in the form of what is called "worm fence," in some sections. The stakes are set at the corners, upright, which occasions much less inconvenience in cultivation than when they stand bracing. They are fastened by "yokes" made by boring three inch holes through suitable pieces of wood, which are slipped over the top of the stakes; two rails being generally laid above them, which complete the fence. Stone walls are sometimes made, and are, when well built, an excellent fence for all stock but sheep. But as sheep are the chief stock, and they are apt to run over stone walls, rail fence is most common. We saw in one or two instances a wall built of rather small stones, with layers of grass turf interlaid, and the top finished with turf. It was put up by a Scotchman as an experiment, and time enough has not yet elapsed to ascertain how it will answer. It is supposed that the grass will live and assist in holding the wall.

GRASS LANDS.—This section of country is particularly favorable to the growth of grass. Judging from appearances, it is our opinion that we have never seen any other land which is capable of sustaining as much stock to the acre. On the rich alluvions of the Scioto, we have seen fields which may perhaps produce as great a *weight* of grass per acre, but it does not appear to be as nutritive as the herbage of the best Vermont pastures. On these, the turf, which is of the thickest and finest kind, is composed mostly of the spear-grass, or Kentucky blue-grass, (*Poa pratensis,*) with other grasses and white clover enough for variety. The hay made from these lands is of the most nutritive quality. We were shown samples in which the natural greenness of the grass was preserved almost unchanged, giving a delightful fragrance, it being almost as nicely cured as the famous "Shaker herbs." Stock of all kinds will, and *do* actually fatten on this hay. It is a fact that oxen bought in the fall in only store condition, if properly sheltered and fed with such hay, become in the spring fit for slaughter, and are sent to Brighton market without any other feeding. In fact, so excellent is the hay which is made here, and so fine is the pasturage, that some of the best "grass beef" that is bought for the Brighton market is found here.

In an article on the "Agriculture of Addison county," in the New-York State Agricultural Society's Transactions for 1844," written by S. W. JEWETT, some remarkable facts are stated in reference to a tract of this county said to be "fifteen miles in length and eleven wide—about one-half unimproved, covered with timber. This tract comprises six towns, averaging each five miles square."

"The census of 1840, enumerates 7,000 inhabitants; about 1,400 of this number were employed in agriculture. The number of *tons of hay* produced, were rising fifty-one thousand; *neat cattle*, nineteen thousand head; *sheep*, one hundred and forty-four thousand; and two thousand one hundred *horses*. If we include four more adjoining towns, we swell the number of sheep to two hundred and forty thousand six hundred and sixty-four."

SHEEP.—The most important description of live stock for this section, is sheep, and these are kept in larger numbers in proportion to population and extent of territory, than in any other part of the United States. The Merinos, full blood, and high grades of that variety and the Saxons, are generally kept. The Merinos were carried to this section at different times and by different persons from twenty to thirty years ago. It is a well established fact that all animals undergo changes to some extent, on being removed from a country they have long inhabited to one of a different soil and climate. This we think has been the case with the Merinos first transferred to this district. The fertility of the pastures, the regular and abundant supply of nutritive food the year round, with the healthfulness of the location, have effected a visible change in the constitutional character of the animal. First, their general size has been enlarged. Every one who passes through this section, and observes the various flocks he may chance to meet, will see that their average size is considerably greater than that of Merinos commonly met with in other sections. Second, the fleece, especially of the larger class of sheep, and those which, having been bred here for some time have become fully acclimated, has generally lost something of its original fineness; but the capacity to bear a larger quantity of wool has been evidently increased, accompanied by improved hardiness and vigor of constitution, a thicker skin, and an adaptedness to the climate which leaves nothing in this respect to be desired. The increase in the weight of the fleece has been in some cases in a greater ratio than the increase in the weight of the carcass,—the wool being both longer in staple, and more thickly set on the body. Numerous cases were made known to us by honorable and veracious men, of breeding ewes (Merinos) rearing lambs every year, having for several successive seasons yielded from five and a half to six pounds of well washed wool per fleece; and of bucks yielding from ten to twelve, and in one or two instances thirteen pounds. In most cases we examined the identical animals to which we allude, and took from them samples of wool, which we can now show. The flocks which came under especial notice, were those of S. W. Jewett, Wightman Chapman, and Mr. James, of Weybridge; M. Bingham and A. L. Bingham, of Cornwall; L. O. Burchard, Ex-Governor Jenison, L. C. Remelee, M. W. C. Wright and John T. Rich, of Shoreham; Seth Langdon and Alvan Squires, of New-Haven; Charles L. Smith, of Bristol; C. B. Cook, of Charlotte; Henry S. Morse, of Shelburn.

Mr. RICH'S flock consists mostly of the Merino stock purchased by his father, the late Hon. Charles Rich, of Andrew Cock, late of Flushing, Long-Island. They have short legs, compact bodies, and heavy fleeces, though not as fine in staple as some Merinos. Of a lot of one hundred and forty-seven ewes which Mr. Rich sheared last year, one hundred and five gave a fraction over five pounds per fleece, on the average. Mr. Rich has for the last two seasons been breeding from a buck bred by the Hon. William Jervis. This buck, called *Consul*, now owned by Mr. Rich, is the sire of Mr. Jewett's famous buck *Fortune*. Consul is a buck of great value—is ten years old, yet he sheared last year ten pounds of washed wool, of excellent quality for Merino. Old as he is, his fleece is still well set, and we presume will not this year fall much, if any, short of its former weight.

Mr. JEWETT'S flock consists of descendants from the imported Merinos of Messrs. Humphrey, Jarvis, D'Wolf, Cuff and Cock, with some purchased of William Davies, Esq., of Poughkeepsie. The buck Fortune was the produce of a ewe of the Cock stock, by the buck of Mr. Jarvis's breeding before mentioned. He is a large bodied, short legged sheep, carrying an enormous fleece of about medium quality. His average fleece has been eleven and a half pounds. He is now six years old. The lambs of his get are large, well formed, and strong. When we were there, two hundred and twenty-seven of Mr. J.'s ewes had lambed, and he had two hundred and twenty-five lambs alive and well. The lambs of the other two ewes were yeaned dead—so that every lamb was saved that was born alive. The loss from Mr.

Jewett's flock of six hundred and forty-three, was only two, from Nov. 1, to May 1. Mr. J. has many good ewes.

Mr. WRIGHT and Mr. REMELEE have some first rate sheep. We can hardly avoid particular reference to two of Mr. Remelee's ewes, which he purchased of Mr. Jarvis. With the exception of a trifle more length of leg than we should wish, they are in fleece and carcass about all that could be desired in Merino sheep. One of them especially, is almost a model of excellence. Their wool is beautiful, as all will admit who will examine the samples we took. The fleece of one, last year, weighed six pounds and an ounce, and that of the other six pounds. Each reared a lamb—one of which, by Mr. Wright's buck "Black Hawk," now has a lamb, and though but little more than a year old, will give, we should think, six pounds of nice wool. The old ewes have also fine lambs this season.

Mr. BURCHARD has heretofore bred the Saxons, and many of his flock now show the characteristics of that variety. He has, however, been latterly infusing into the flock the blood of the heavier fleeced and stronger constitutioned Merino. He has some very pretty stock—some of his bucks are in all respects good samples of the finer wooled class of sheep.

We happened to call at Mr. A. L. BINGHAM'S farm in his absence, and consequently had not the opportunity of seeing his buck called Vermont Hero, which is own brother to Fortune. He is represented to be a remarkable animal, and we regretted not being able to find him. In the flock of MERRIL BINGHAM, there are many large, well shaped, heavy fleeced sheep. Seeing them in large fields only, we could not examine them so particularly as if they had been in yards. He and his brother, A. L. Bingham, have lately purchased of the Shakers a flock of very heavy Merino ewes. Mr. CHAPMAN has some good sheep from ewes having considerable Saxon blood crossed with Fortune. Mr. LANGDON has also very good sheep. A yearling ram of his, from a ewe of Mr. Atwood's stock, of Litchfield county, Ct., is very superior. Mr. COOK has several ewes also from Mr. Atwood's stock, which are very good. Mr. SQUIRES has a large flock. Many of his ewes strongly show the Saxon blood. He owns the buck called Don Pedro, formerly owned by Mr. Jewett. Though this buck is declared to be a full blood Merino, descended directly from the importation of Col. Humphrey, (which by the way we see no good reason for disputing,) we do not hesitate to say his wool is too coarse—coarser than should be encouraged for Merino. The *quantity* of wool he has yielded, however, is unprecedented. He is seven years old, and when we saw him had been sheared six times—the fleece of the present year not having then been shorn. The aggregate weight of his fleece is sixty-seven pounds and one ounce. Calling the weight of his fleece this year equal to that of the last, (12 lbs. 6 ozs., and it will not vary much from it,) the whole quantity of wool yielded by this buck in seven years, would amount to seventy-nine pounds and seven ounces! To do the animal justice, we are bound to say that he has great vigor of constitution, and the most perfect symmetry of carcass we have ever seen in a Merino sheep.

Mr. MORSE has about two thousand sheep, of good quality, but as we intend speaking more fully of his farm in our next number, particulars are here omitted. We have much more to say of Vermont farming, and shall resume the subject next month.

ITEMS FOR THE SEASON.

GRASS SEED.—One of the most successful and economical modes of securing timothy seed, and which is practiced by some farmers to great advantage, is to reap the tops of the grass while it is yet standing in the meadow, to be afterwards thrashed and cleaned, and then the rest of the grass is mowed and manufactured into hay. The seed thus costs only the labor of cutting and thrashing, the remainder affording the usual crop of hay.

MIXING MANURE with the soil is of the greatest consequence; and it is especially so when applied in the latter part of summer for the wheat crop. Wheat will not bear an abundant supply of unmixed manure, buried in large masses and lumps beneath the soil. When manure therefore is spread, it should be harrowed at least half a dozen times well, with the surface soil, before the plow turns it under. It thus becomes thoroughly broken, the soil is made mellow, and the whole is well intermixed. So important is this operation, that one-half or even one-third the manure will sometimes be equally efficacious where this practice is adopted.

TRIMMING YOUNG TREES.—It often becomes necessary at midsummer, to trim the side branches of young trees, for the purpose of throwing the strength of the growth into an upright form. But if the side branches are cut closely, the main stem becomes too slender to support the mass of leaves and branches forming the top, and the tree assumes a bending or crooked form. To obviate this difficulty, trim the branches within about half an inch of the stem, leaving short stumps, with the leaves at their base. These assist in some degree the lateral growth of the stem, and serve to stiffen it, and which may be afterwards cut closely to the stem. An attention to this particular, will often save much trouble in staking up crooked trees.

THE TRUFFLE AND "TUCKAHOE."

There are probably many people who never heard of the truffle, and the number in this country who even saw or tasted a vegetable known by that name, is quite small. We have often heard of the plant called at the south "tuckahoe," or sometimes "Indian bread," but having never seen one, had no idea till lately that it was closely allied to, if not identical with some of the European species of truffle. Our attention has been particularly called to this subject by reading an article in the May number of the *Southern Planter*, written by C. Campbell. He gives an extract from a description of the tuckahoe plant, written by the late Hon. James M. Garnett; from which description, compared with that given by European writers of the truffle, we should have little doubt of their near relationship. Mr. Garnett says of the tuckahoe: "It is indeed a great botanical curiosity, for it has neither root in the ground nor stem above, but grows a few inches below the surface, apparently as unconnected with the soil as a buried cannon-ball would be. It is oval in shape, and varies in size from that of a goose-egg to that of a man's head. The coat is rough, and of a dark brown color—the inner substance is very white, similar in texture to that of the yam, and of an insipid taste."

Johnston's Encyclopedia describes the truffle as—"A round fungus growing under ground in many parts of southern Europe, destitute of roots and leafy appendages. It absorbs nutriment at every point on its surface. The truffle is composed of globular vesicles, destined for the reproduction of the vegetable. * * * Each globular vesicle is fitted to give origin to a multitude of reproductive bodies, but a few of them only perfect the young vegetable. The parent dies; the trufinelles are nourished by its dissolving substance, and the cavity it originally filled becomes the abode of a multitude of young truffles; but many of them die, the stronger starving the weaker. The truffle is one of the most wholesome and nutritive of the esculent fungi, and is generally discovered by means of dogs, which are taught to scent it; so that on meeting the truffle they bark and scratch it up. Truffles are highly esteemed at the tables of the luxurious, where they are served up either roasted in a fresh state like potatoes, or they are dried, shred, and dressed as ingredients in soups and ragouts."

In Virginia, it is said, the tuckahoe is discovered by hogs, these animals being fond of eating it, and scenting to a considerable depth in the ground.

LIQUID MANURE.—The Chinese, who are particularly skilful in the management of manure, are extremely careful not to waste the smallest portion; and, according to Sir George Staunton, they prefer the dung of birds to that of all others, and next to that night-soil, which they apply in a liquid state.

ENTOMOLOGY—KILLING WORMS WITH SALT, &c.

Very often, a paragraph gets started, and goes the rounds, (as one has lately done) stating that an application of salt to plants, will keep them from being killed by worms; or that salt so used will actually kill the worms. How much injury is done by such recommendations, it is impossible to tell; but if any one having plants exposed to the depredations of worms, should think to preserve them by following such prescriptions, he will be very likely to be disappointed. We are authorized to say this from *experience*, having often tried salt as a protection against worms, and never found it to answer. We have placed it around corn, cucumbers, cabbages, &c., in such quantity that the plants suffered from it, without its having the least apparent effect to check the worms. The "cut-worms," or those which do their work above-ground, cutting off the plant at its surface, crawl over the salt without noticing it, and the worms which work underground, feeding on the roots, "pursue the even tenor of their way," alike undisturbed. We once put five different species of worms in a stone-jar with earth. The earth was kept moist and salted at various times—turning out the earth and counting the worms every two or three days, to see if the salt occasioned the death of any, or in any way affected them. Finding all "alive and well" at each counting, we continued to salt them till we had applied at the rate of over forty bushels to the acre, with no difference in the result. The occurrence of an accident broke off the experiment, which prevented us from ascertaining the precise quantity of salt which an acre would require to kill the worms that might be in the soil. But as before remarked, we have ascertained from several trials, that it will take less salt to kill vegetation, than it would to kill worms; so that in conducting an experiment the former consequence may be first expected.

In articles written on the subject of insects, there is too frequently an indefiniteness, and in some cases an inconsistency, which renders them worse than useless, as they only promulgate error. Great mistakes are committed from an ignorance of the habits of insects, particularly of their transformations. All insects when they have acquired their full growth in the larva or worm state, pass into the chrysalis or pupa, and thence into the perfect or fly-state. Those of the same species, placed under the same circumstances, hatch nearly at the same time, and of course finish their first period and are changed to the chrysalis all together. From the time they are hatched till shortly before they pass to the next stage, their voracity increases; but when they have attained their full growth and the time for transformation arrives, they suddenly cease feeding, and the ordinary observer sees them no more.

Now we have known instances of farmers becoming greatly alarmed at the devastation committed by worms on their field crops; but not having examined with sufficient attention, they did not become aware of the prevalence of the insect, till its size and the wide-spread destruction it had occasioned, showed it to be nearly full-grown, and that its predatory labors were, of course, nearly ended. In this state of the case, the farmer, anxious to check the injury, sows his fields at once with salt, ashes, or lime. He sows all alike, however—he makes no experiment which teaches anything—he makes no division of the ground, marked by metes and bounds,—applying the supposed remedy to some lots, and not applying it to others,—as should be done to understand the results. In a few days, the worms, in accordance with their natural organization and habits, stop eating; and descending into the earth (as is the habit of some tribes,) prepare for transformation. The farmer examines his crops—the mischief has been stopped, the worms are gone, and he exults in the faith that "*salt has done the work for 'em!*"

Another instance of error in entomology lately met our eye in the *Boston Cultivator*, and from that has been copied extensively into other papers. The writer asserts that—"the cut-worm would not be found in corn, were it not planted in sward or sod land. They are the progeny of a species of beetle or other insect, which could never propagate its kind without the aid of dung which is found in grass-fields that have been fed by horses or cattle, and in this they inclose their eggs, and sink them a given distance below the surface."

Here are several errors which may be productive of greater or less injury. In the first place, it is too much to say that "the cut-worm would not be found in corn if it were not planted on sod ground." It may, to be sure, be somewhat uncertain what species of insect is here alluded to under the name of "cut-worm," but the term is usually applied to those worms which eat off the young stems of plants, generally at the surface of the ground, though sometimes a slight depth below the surface. They are known by entomologists under the name of AGROTIDIDÆ, or Field Moths. The group includes several species—we cannot say how many are known in this country—we have been acquainted with five or six; but none of them are "beetles," as this writer supposes—they are all *moths*, or "millers." We ascertained this more than twenty years ago, by taking some of the larva as they were about to pass into the chrysalis state and confining them till their transformation was completed. Dr. Harris has well described these insects. He says:—"Most of these moths come forth in July and August and soon afterwards lay their eggs in the ground, in plowed fields, gardens, and meadows."

The assertion of the writer in the Boston Cultivator, that "the insect could never propagate its kind without the aid of *dung* in grass-fields which have been fed by horses or cattle," must have been made without a proper knowledge of the subject, and the same remark will apply to his *history* of the insect. The worm, he says, "is the progeny of a species of beetle, or other insect!" This statement, *in one or the other of its parts*, is undoubtedly correct! But from what follows in regard to the eggs being deposited in "*dung*," the writer had evidently taken the dung-ball beetle, (*scarabaus relictus?*) as the parent of the "cut-worm!" Many persons may have seen numbers of cut-worms on meadows where cattle and horses were never pastured, and where none of their "dung" could be found. The insect is found mostly on sod grounds, but the eggs are laid, as stated by Dr. Harris, in the above quotation, "in plowed fields, gardens, and meadows," and the larva are of course found more or less in all these situations.

FOWLS IN YARDS.

Hens kept in small yards, often acquire the habit of plucking out each other's feathers. Some particular individuals, generally the cocks, are made the subjects to be despoiled of their plumage for the amusement or satisfaction of the rest. The habit sometimes becomes so inveterate that it is almost impossible to check it, and the plucking is continued till the victims are stripped almost naked—till in some cases even their crops and entrails are torn out. We could never fully understand the cause of this unnatural appetite, though from its being seldom seen in fowls which have their liberty, it seems reasonable that it is induced by confinement. But whether it results from mere fretfulness, or from a want of some kinds of food which they are able to procure when allowed to run at large, is uncertain. When fowls are allowed to select their food, as they do when unconfined, it consists of a great variety. Besides all kinds of grain, they eat largely of grass or green vegetables, as well as animal substances. The animal food is generally supplied by insects—worms, beetles, grasshoppers, &c. As condiments, they eat flinty gravel and lime; frequently taking liberal draughts of water. They dust themselves in clean, fine sand if they can get it; but ashes, if not too strong, may perhaps be better. It is obvious that their food when they are kept in a confined state, should conform as nearly as possible to what they would prefer if allowed to choose for themselves. A patch of clean grass should, if practicable, be allowed in their enclosure, and as a substitute for insects, butchers' offals might be given them. If they have not sufficient grass, they should be fed twice a day with lettuce, cabbage, or tender plantain leaves, of all which they are fond. We have noticed that they appear to prefer lucerne to almost any other

herbage, and on this account it might be an object to have their yard well set with this plant. Gravel, and lime or pounded lime stone, must not be omitted, and it must be *fresh and clean*.

It seems strange that fowls should quietly submit to have their feathers drawn out in the manner described. We have seen roosters stand perfectly still while two or three hens were round them, each occasionally plucking a feather, which was generally swallowed. A little cringing by the rooster, when a feather required an uncommon *jerk*, was all the ado made. When a spot on the body of the fowl is once plucked bare, it is generally kept so—the young feathers just as they appear through the skin, seeming to be preferred. They are then full of bloody juices. Can any one explain the cause of this morbid appetite, or tell us the best way of keeping fowls in a yard?

TREES IN DROUTH.

The past spring having been unusually dry, some interesting observations have been made in relation to the influence of different modes of treatment, for securing success in transplanting.

All fruit and other trees, as soon as they are taken from the soil, should have the roots immediately immersed in mud prepared for the occasion. This coats the surface, prevents drying, and when the tree is set out, continuous contact is maintained between the soil and the roots. Small apple trees, the leaves of which were half an inch to an inch long, and set out in dry weather, and suffered much in consequence, one-third of them dying, and the rest of them lingering with little growth during summer. Another portion of the same lot of trees were immersed in mud. Not one in ten of these died, and those which lived, made, the same year, double the growth of those which were unmudded. Several experiments made the present year, fully confirm the eminent advantages of thus coating the roots with mud.

Another important requisite in setting out young trees, and especially so if they are set out in spring, is pouring in water to settle the earth among the fine roots. Many trees are lost solely in consequence of the cavities in the earth, in contact with the roots, occasioned by a careless manner of shovelling in the earth; half a pail of water dashed in, fills these cavities, and settles the soil closely among the roots, without packing it to hardness. A row of twenty peach trees, set out this spring, and treated in this way, are all growing vigorously, and are from two weeks to one month ahead of another row, where this precaution was omitted.

In very dry seasons, during the latter part of spring and the early part of summer, it sometimes happens that trees well set out suffer seriously from drouth, and not unfrequently perish from a want of moisture. Water is applied as a remedy; but it often happens that the hard surface prevents it from sinking deep into the soil, the surface only becomes wet, and afterwards bakes to a crust, while the roots are little benefitted. To obviate this difficulty, remove carefully, with a hoe or spade, several inches of soil from above the roots, then pour into the cavity thus formed, half a pail of water, and as soon as it settles into the earth replace the earth. The roots thus receive the direct benefit of the water, and the surface of the earth is left mellow. A neighbor, who had set out many trees last autumn, and fearing a loss of half of them, was directed to water them by the mode here recommended. He did so, and now all of them are doing well, except one doubtful tree. Similar success attended the practice of the writer, where a row of peach trees were set out in his absence, without mudding the roots, or dashing in water. During the late severe drouth, nearly all of them presented a very discouraging appearance; but they were thoroughly watered by a removal of the surface earth as just described, and now all of them are growing.

It is familiar to most intelligent cultivators, that nothing tends more effectually to retain the moisture of the soil than constantly stirring and mellowing the surface. At the same time, it promotes the growth of young trees to a degree almost incredible to one who has never tried it. Hence a constant and thorough mellowing of the surface of the ground for many feet around such trees, by spading or other effectual mode of loosening, is at this season of the year of the most vital consequence.

PEA-BUG—*Bruchus pisa.*

Everybody has seen peas with weevils in them. While the pea is growing and the pod is soft, the parent insect punctures the pod exactly opposite the young pea and deposits an egg. From this egg a maggot soon proceeds, which works its way directly into the pea, and feeds on its substance. The larva reaches its full size, and passes into the pupa state in the fall, and the succeeding spring emerges from the pea a winged beetle or weevil. The maggot may sometimes be detected in green peas, and Dr. Harris observes that few persons while indulging in this luxury are "aware how many insects they unconsciously swallow." By close examination, a small dark spot may be seen on the pea, and on opening it the maggot may be discovered. The germ of the pea is not always (perhaps not generally) destroyed by the insect, but the pea is rendered unfit for culinary purposes. This is a serious injury, as all will acknowledge who are acquainted with the value of dry peas used in soups, and other forms, on the table.

In this country, the insect is much less common in Canada and the more northern portions of the United States, than further south. In Maine and Vermont, for example, they occasion but little damage, peas being there raised which are perfectly sound and free from bugs, and meet with ready sale in our large cities. The attack of the insect may, however, be in some degree obviated in any section. It is ascertained that its operations are only continued through a portion of the season, and by late sowing it may be avoided. But there is one objection to late sowing. In districts subject to great heat and which are also liable to long drouths, a good crop of peas can only be obtained by early sowing, as the crop will not bear excessive heat. In planting peas infested with bugs, it is always advisable to kill the insects in some way. This may be effectually done by pouring boiling water on the peas, and stirring them well for a few minutes. It will not much affect the vegetating powers of the pea. In some cases, where the germ has been laid bare by the gnawings of the insect, it may be killed, but we have often practiced the mode, and found no particular objection to it.

But we lately noticed a recommendation of Dr. J. T. Plummer in the Indiana Farmer and Gardener, which is worthy of trial, as it will not only destroy the bug in its incipient stage, but may also render the pea fit for the table. His mode is to scald them immediately after they are gathered, keeping them in water, turned on boiling, for one minute. Dr. P. states further, that placing peas as soon as gathered in jugs or bottles, hermetically sealed, will keep them well, and that nothing can be seen the next year but the speck in which the larva died.

MILK SICKNESS.

We see that the discussion of the cause of this disease, is again revived. We had supposed it was pretty well settled that the "trembles," or "milk-sickness," was occasioned by a plant. Dr. Drake, of Cincinnati, published a pamphlet on the subject a few years since, in which the disease was attributed to the *Rhus tericodendron*, or "poison-oak." Some observing men, however, who agree with Dr. D. that the disease is caused by a *plant*, have dissented from the opinion that it is produced by the one he has named. The poison-oak is frequently found in sections where no milk-sickness has ever been known. Experiments, also, have been made by feeding it to certain animals, and no ill consequences were produced. Mr. Thomas S. Hinde, of Mt. Carmel, Illinois, who has devoted much study and observation to the subject of milk-sickness, is confident that he has traced the origin of this disease to a plant; but is confident that the plant is not the poison-oak. He states that he has both the poison-oak and the plant to which he attributes the disease, growing in his

garden, and that they are evidently of different species. Their qualities, also, as he and some others seem to have proved, are very different—the poison-oak, when eaten by cattle or other animals, occasioning no bad effects, and the other plant producing sickness or death, when fed to calves, cows, oxen, and even men, as has been shown by experiments. Mr. Hinde thinks the plant which produces the sickness is a *nondescript;* though he is inclined to think it belongs to the genus *Rhus*, of which, as above mentioned, the poison-oak is a species.

Some communications have lately appeared in the *Prairie Farmer*, designed to show that the milk-sickness is caused by poisonous mineral substances held in solution by water, or from poisonous springs. From the facts cited, there seems to be no doubt that the water of particular places has produced sickness, both in men and cattle, but we are unable to say that it was the true milk-sickness. There is at least this objection to the theory that this sickness is caused by poisonous water, viz: that it has greatly prevailed in many situations where no such water has ever been discovered. The Mud river valley, in Ohio, for instance, a region noted for the abundance and purity of its water, was formerly very subject to milk-sickness. It seems that cultivation, and the substitution of cultivated grasses for the plants of wild growth, have there, as in other places, banished this dreadful malady.

We would feel obliged if Mr. Hinde would send us a leaf of the plant growing in his garden, which he thinks is the cause of the disease above mentioned.

ULTRAISMS.

A paper from Dr. MUSE, president of the Dorchester (Md.) Farmers' Club, was read before that association in April last, a copy of which, by a resolution of the Club, has been forwarded us for publication. A great press of other matters prevents our giving space to the whole; the following extracts, however, exhibit the substance of the article:

"The mind of man is too apt on most subjects, and especially those of deep interest, to run off, unconsciously into a state of "*ultraism*"—and from one point, discovered to be defective, to an opposite one equally at variance with the sober dictates of reason, whose counsels, if seriously invoked, would readily afford a corrective to the frequent and fatal errors of extravagance; leading to the disappointment and frustration of our hopes, and purposes.

On the subject before us, this error has, in my humble opinion, been committed—and some of the novelties, in relation to the improvement of crops and soils—by a short recipe—have been too highly appreciated, and may thereby become pernicious; yet, I hold it to be quite reasonable to anticipate advantages, from some of them, as auxiliaries—but unreasonable to conjecture the possibility of such great results as are promised by their inventors.

Chemical solutions—poudrette—guano, and electricity are each, offered by their respective advocates, to the practical farmer, as an *agricultural catholicon*—a remedy curative and preventive of all the ills and diseases incident to his various crops.

In respect to the chemical solutions, it is wholly inconceivable that a grain of wheat, or other seed, should absorb from a steep of the highest degree of concentration all the requisite food contained in ordinary manures: it is admitted that one essential element—nitrogen—is required in but small portions—but it is very doubtful whether all the demands of the plant for this material, may be supplied in this manner, with the aid of the atmospheric source alone; these contribute a large portion, unquestionably of this element, as well as of carbonic acid, &c., &c., but the structure of the spongioles of the roots demonstrate that the *roots* as well as the *leaves*—the *earth* as well as the *air* furnish a share of the nutritive gasses and other soluble substances placed in it by accident or design; which experience has settled beyond the power of a possible refutation.

Where, I would ask, will be found the potash—the soda—the lime—the magnesia—the silicates—the phosphates, and the other essential materials of the plant, not in the barren sand before named; neither will they be found in the *air*, for they are not vaporable—nor in the *steep*, and yet the plant must find them or perish.

Be assured, gentlemen, we must hold on to the compost heaps; if properly made, these will supply the *deficit* essentials, which the steeps did not possess, and which the small volume of the seed could not contain."

Dr. Muse thinks it is probable that the use of steeps, as well as the application of electricity, may prove of essential service in agriculture; and he states that he is himself conducting several experiments in regard to these subjects, the results of which will be made public.

ENORMOUS OAK TREE.

Six miles W. S. W. of Saintes (in the Lower Charente) stands an old oak tree, which promises yet to live many centuries, if the axe of some Vandal does not cut it down. The following are the dimensions of this monarch of the forests of France, and probably of all Europe:—

Diameter of the trunk at the ground,	27 to 30	feet.
" at the height of a man,...	20 to 22	"
" at the base of princ'l br'hs,	3 to 6	"
" of the whole head,.....	120 to 130	"
Height of the trunk,.....	24	"
" of the branches,.....	66	"

A room, with a circular seat, has been cut out of the heart wood of the trunk, from nine to twelve feet in diameter, and nine feet high. A table may be placed in the middle, round which twelve persons can sit. It is adorned with a living carpet of ferns, lichens, &c. Upon a plate of wood, taken from the trunk, about the height of the door, two hundred concentric annual rings have been counted, whence its results, in taking a horizontal radius from the exterior circumference to the centre of the oak, there must have been from 1800 to 2000 of these rings, which makes its age nearly 2000 years.

CULTIVATION OF WHEAT.

An interesting experiment, showing at the same time, the benefits of stirring the soil, and also the danger of drawing false conclusions, is given by L. Vernon Harcourt, in the agricultural department of the London *Gardener's Chronicle.*

He had seen a statement that the tailings of wheat, called "chickenscraps," being, in fact, only the refuse of the grain, would yet produce a good crop of the heaviest, fullest seed. Disbelieving it, and being desirous of undeceiving the farmers by proving its fallacy, he proceeded to try the experiment. Accordingly, a small plat of ground was sown, one-half with good wheat, and the other half with tailings. On returning home after an absence of some weeks in the spring, he was surprised to find the latter covering the ground as thick as the grass on a meadow; but found, upon inquiry, that the person having charge of the experiment, considering the seed good for nothing, had sown five or six times as much of it as of the other. As this thwarted the design of a comparison, half the thick sown was directed to be hoed out till of the same thickness as the other from good seed. The other half of the thick sown was left to take its chance. At harvest, the first twelve plants in one row of each sort, were taken as a sample; and the produce weighed as follows:

	Grains.	Av. ears pr. pl't.
12 plants from good seed weighed.....	926	6.6
12 plants from tailings left thick weighed .	351	3.8
12 plants of the same thinned, weighed...	1133	7.8

It is of course evident to every intelligent person that the increase in the product of the hoed portion was owing to the cultivation by hoeing, which is further proved by the meagre supply from the unhoed wheat from the tailings. But the experiment performed under other circumstances, and with other seed, might have led to very erroneous conclusions.

MANUFACTURE OF CHEESE.

The following is an extract from the statement of ALONZO L. FISH, of Herkimer county, who received the first premium of the New-York State Agricultural Society, for the best cheese dairy, in 1844.

Calves' rennets *only* are used after being dried one year. There are less animal properties in them than in new rennets, and will not make cheese swell in warm weather, and on shrinking, leave them like honey comb, full of holes, with a rank flavor.

Calves, whose rennets are designed for cheese making, are not allowed to suck sick cows, or those giving bad milk, but are fed a plenty of good milk, from five to ten days old; twelve or fifteen hours after sucking, when the gastric juices are most abundant and pure, the rennet is taken out and stretched on a bow; as much fine salt is added as will adhere without draining, and hung in good air to dry. Milking is done in tin pails, strained through a large tin strainer into a tin vat, where it is not skimmed nor moved till the cheese is made. The pails are set into a common sap bucket, which being light and smaller at bottom than top, a little press on the pail will fasten the bucket to it so that it carries with the pail without any inconvenience. A light tap on the bucket will drop it, and leave the pail clean and not bruised. A tin vat, large enough to hold the milk, is set within a *larger wooden vat*, with one inch space between the sides and bottoms of the two, to admit water, which is cooled by ice and heated by steam, which water cools the milk to take out the animal heat, warms it to receive rennet, remains and heats whey and scalds curd. It is discharged by a cock to pass off into a tub, and scalds bran or meal for slop feed, when it is required. Scalded feed is required daily when the cows are milked, on hay feed. A large reservoir is built of stone and cement to contain fifty hogshead of rain water from buildings, to discharge by a cock into the above described space into a steam generator or into a tub, or any other place in the lower rooms, where it is desired. A pump affords water to this apparatus in case of drouth. Thus the same water is made to perform three distinct offices, by no more labor than to turn three cocks with thumb and finger.

After water in the reservoir is not wanted for cheese making, a pipe conducts it into the top of ice house to freeze in solid mass in winter, for cooling milk the next season. No skimmer, pail or dipper, is required about this apparatus, only to milk in, as the cream which rises over night is not separated, nor no dipping of milk, whey or water. The heating is done daily, by a handful of chips, or four quarts of charcoal, and all shift of apparatus can be made with one hand while the other is employed in the milk or curd. A young man is hired at $11 per month, for eight months, to take the whole charge of nursing, feeding, making and take care of milk and cheese through the summer, and does no other business. He is required to keep a register, daily, of the variation (if any) of heat, salt, quality and effect of rennet, number of cows milked, quantity of milk from which cheese is made, condition of curd when put to press, when cheese is put on shelf that it is weighed and numbered upon the bandage, so that when cured the result of certain variations may be known. An inch pipe passes from the steam generator and discharges steam into water under the tin vat; in ten minutes the whole mass is warmed to ninety degrees to receive rennet. The steam is then turned off (which would otherwise be lost) into a tub which stands high enough to discharge into the cheese vat and scald it after the cheese is made. Hot water is drawn at any time from the same to cleanse pails, cloth hoops, &c. Calves' rennets only are used, after being one year dry, they being less apt to make cheese swell in warm weather, and of better flavor. A piece of rennet, to bring curd in forty minutes, is pounded fine in an iron mortar, and soaked a short time in warm water mixed with a little annatto, drained, strained and put into the milk. When come, the curd is cut in large pieces with a wood knife, thickest in the middle, to give it a slight pressure before there is much surface exposed to be rinsed by whey; after standing ten minutes, the pieces are cut smaller with the same knife, then broken up by putting the hands to the bottom of the tub, bringing them through to the top, with fingers spread, with a slow motion, to give it all a slight pressure without tearing fine while tender; heat is kept as high as eighty-eight degrees while working; steam let on; the motion and pressure with hands increased with increase of heat and toughness of curd; heat is kept up to continue the action of the rennet, as it is most active when warm; heat raised to ninety-eight degrees; the steam is then turned off; it is kept at that heat thirty minutes. The scalding is now done; the water and whey are discharged, one pound of fine salt to fifty of curd is added, while warm, to shrink the curd and prevent holes in the cheese. After getting cool it is put to press; the pressure is from five to seven tons; in six hours is turned into clean cloth, and again in twelve hours more is taken out of the press and put upon the shelf, weighed, bandaged, greased with oil of whey butter, turned daily. No greater heat is ever used in the operation than the natural heat of milk, (ninety-eight degrees.)

FATTENING OF PORK IN IRELAND.

We notice in the Louisville *Journal*, an article on the "Provision Trade of Ireland," evidently written by a man who understands the subject. He informs us that the Irish pork, which in the English markets is preferred to any other, is fattened almost entirely on *potatoes*. He says:—

"The pork of Ireland is raised and fattened *exclusively* by the peasantry on cooked potatoes, with occasionally very little oats. I never knew an instance of more than ten hogs being fattened by one man for sale, and this is a very rare occurrence. The great bulk of them are got from men who fatten but one or two hogs."

The writer is of the opinion that the "*best brands*" of beef can be put up in the western section of our country, and sent into the British market so as to pay a handsome profit; but of pork he has doubts whether even the best can be sent there to any advantage. On this point he remarks:—

"We know that a division of labor on any thing is sure to produce a more perfect article and at a cheaper rate. Just look at the ease and cheapness with which an Irish peasant can fatten his one or two hogs, almost entirely from the refuse of his family table, and see how superior the flesh of that animal must be that is constantly fed from its birth on good cooked food."

Our principal object in making the above extract is, to check the prevalence of what we believe to be erroneous impressions. The first of which is, that pork made from potatoes is *not good*—and second, that hogs *cannot be fattened on potatoes*. The latter opinion has latterly received considerable support from some distinguished French chemists. It may be proper to remark, however, that other chemists, Liebig, Johnston, &c., do not agree to this conclusion, which the experience and observation of many farmers shows to be fallacious.

FARM ACCOUNTS—PREMIUM.

EDITOR CULTIVATOR—The writer of this note is engaged in compiling a *Family Almanac*, and *Repository of Useful Knowledge*, for 1846, and wishes among other things to aid farmers and house keepers in keeping regular accounts of their *business, income*, expenditures, &c It is believed that by presenting proper forms for doing it, a great many families may be induced to adopt this very important and useful, but generally neglected practice. A premium of $10 is therefore hereby offered for the best *form* or *mode* of keeping farming accounts in detail; and $5 for the best form of keeping household or family accounts. Will some of your readers who are in the practice of keeping such accounts, transcribe or copy enough of the same to show the plan or mode, from which a selection may be made? Communications (post paid) will be received till the 20th of August, addressed *A. F. W.*, Washington, D. C.

Washington, June, 1845.

Notices of New Publications.

"THE FRUITS AND FRUIT TREES OF AMERICA."

When we announced this work, in our May No., it was supposed that it would have been published on the first of May; but circumstances, beyond the control of the author or publisher, have delayed its publication till the latter part of the last month. We had then only seen the proof-sheets—we have now the work complete, in a beautiful volume of 600 pages—a perfect treasure to the fruit-grower. It embraces the entire subject,—production of new varieties, propagation by grafting, budding, &c—soil, transplanting, position and culture, training, pruning, diseases and enemies, with accurate descriptions of 186 varieties of apples—7 of almonds—16 apricots—4 berberries—77 cherries—10 currants—the cranberry—12 figs—40 goosberries—47 grapes—the mulberry, walnuts, chestnuts, and filberts—97 plums—223 pears—79 peaches—18 nectarines—5 quinces—14 raspberries—2 blackberries, and 36 strawberries, with tables of select lists from each kind. In addition, that nothing might be wanting to make the work complete, we have directions for the culture and management of oranges, lemons, limes, citrons, shaddocks, olives, pomegranates, and the different varieties of melons—the whole illustrated, whenever necessary, with engravings, amounting in all to over 200. The book shows the thorough devotion of the author to his subject, as well as his indefatigable research and untiring industry, and is an honor alike to its author and his country. That it will have a rapid and extensive sale, and tend immensely to increase the growing taste for the production and enjoyment of the finer varieties of fruits, is beyond a question.

New-York: Wiley & Putnam—Price $1.50.

WASHINGTON'S LETTERS ON AGRICULTURE.

Fac similes of Letters from His Excellency GEORGE WASHINGTON, *President of the United States of America, to Sir* JOHN SINCLAIR, *Bart., M. P., on Agriculture and other interesting Topics; engraved from the original Letters, so as to be an exact fac simile of the Hand-Writing.* Washington: Published by FRANKLIN KNIGHT.

It is well known that General Washington was much devoted to the improvement of agriculture. A true statesman, he regarded the prosperity of this great interest, as the basis of national independence. It is, however, a matter of surprise, that amid the arduous cares and duties which devolved on him as Chief Magistrate, and as commander-in-chief, he should have found time to direct so much attention to this object. In addition to his official business—which was invariably transacted with the greatest promptness and precision—he not only continued the general direction of operations on his large estates, but by a regular correspondence with the most enlightened agriculturists of this country and Europe, advised himself of every discovery and improvement in husbandry. The letters before us, furnish evidence of his zeal, as well as sound practical sense and good management in relation to rural affairs. As an example in point, we give from the work an extract from his letter to Sir John Sinclair, dated at Philadelphia, July 20th, 1794:

"After the peace of Paris in 1783, and my return to the occupations of a farmer, I paid particular attention to my breed of sheep, of which I usually kept about seven or eight hundred. By this attention, at the shearing of 1789, the fleeces yielded me the average of five and a quarter pounds of wool—a fleece of which, promiscuously taken, I sent to Mr. Arthur Young, who put it, for examination, into the hands of manufacturers. These, pronounced it to be equal in quality to the Kentish wool. In this same year, 1789, I was again called from home, and have not had it in my power since to pay much attention to my farm—the consequence of which is, that my sheep, at the last shearing, yielded me not more than two and a half pounds. Nor is the difference between good and bad management confined to this species of stock, for we find that good pastures and proper attention, can and does fill our markets with beef of seven, eight and more hundred weight, the four quarters; whereas from 450 to 500, (especially in the States south of this, where less attention has been paid to grass,) may be found about the average weight. In this market [Philadelphia] some bullocks were killed in the months of March and April last, the weight of which, as taken from the accounts which were published at the time, you will find in a paper enclosed. These were pampered steers, but from 800 to 1000 the four quarters, is no uncommon weight."

In relation to the facilities afforded by this country for keeping sheep, Gen. Washington adds:—"The climate of this country, particularly that of the middle States, is congenial to this species of animal; but want of attention to them in most farmers, added to the obstacles which prevent the importation of a better kind, by men who would be at the expense, contributes not a little to the present inferiority we experience."

The race of sheep once highly celebrated as "the Arlington breed," originated with Gen. Washington. This was probably the stock above mentioned, the wool of which is spoken of as resembling the "Kentish wool." They were produced, according to the history given by Mr. Custis to Mr. Livingston, [see Livingston's "Essay on Sheep," pp. 57, 58,] from the progeny of a Persian ram, crossed with sheep which Gen. W. obtained from Bakewell—the latter afterwards known as the Dishly or Leicester breed.

The letters are accompanied by some introductory and supplementary remarks from the compiler, to which is added a tribute to the character of Gen. Washington, "by the late Hon. GEORGE CANNING, Prime Minister of England;" all in the highest degree interesting, as showing the respect and esteem with which the character of our revered countryman has been regarded by distinguished foreigners, whose only motive to praise must have been a heart-felt admiration of his virtues.

We are informed in the introduction that the originals, from which these letters are exact copies, were to be deposited in the British Museum, "as the precious relics of a great man fit to be preserved in that valuable repository." Sir John Sinclair was evidently an ardent friend of General Washington, whom he eulogises as one "whose character must ever be revered, even by those with whom he contended either in war or politics, as containing as much good with as little alloy, as that of any individual whose memory is recorded in history."

Canning bestows even a still higher eulogium. He says:—"The whole range of history does not present to our view a character upon which we can dwell with such entire and unmixed admiration. *The long life of Gen. Washington is not stained by a single blot.*" * * * "He was a man in whom the elements seemed so blended that 'Nature might have stood up to all the world,' and owned him as her work. His fame, bound to no country, will be confined to no age." * * * "The character of Gen. Washington, which his contemporaries revere and admire, will be transmitted to posterity, and the memory of his virtues, while patriotism and virtue are held sacred among men, will remain undiminished!"

AUSTRALIA.

According to the account given by Capt. WILKES of the United States Exploring Expedition, the inducements for emigration to Australia, are not great. Capt. W. spent considerable time at New South Wales, which is the principal settlement of the Island, and collected many facts in regard to the soil, climate, natural resources, &c. He states that a large portion of the country is naturally barren—that much of the land devoted to pasturage, requires a hundred acres to keep five head of cattle. Nearly the whole island is subject to great extremes of drouth, followed by torrents of rain. "These drouths are sometimes of such long continuance, that we at one time read of the whole country having been burnt up for want of rain, a famine threatened, and the sheep and cattle perishing in immense numbers." An instance of this kind is mentioned by Capt. W. as having occurred in 1790, when it

is said, "All the live stock which had been imported for breeding was killed off for food, and the inhabitants were reduced to an ear of corn per day. From the exhaustion which prevailed, all labor was suspended."

The drouths, he remarks, "have been succeeded by long-continued rains, which have raised the rivers thirty or forty feet, flooded the whole country, deluged the towns and villages, and completely destroyed the crops. The cattle, stacks, buildings, and sometimes even the inhabitants are swept away. It is stated that in 1839, which was considered a wet season, "twenty thousand sheep were lost in the valley of the Hawkesbury by the floods." These evils, it is added, "appear to be of frequent occurrence, and the settler in New South Wales has to contend with elements in an unusual degree."

Owing to the irregularity of the seasons, it is said, "there are hardly any streams that merit the name of rivers. It is necessary to guard against being misled by the inspection of maps of the country, and forming from them, the idea that it is well watered. Such an impression would be erroneous, and yet the maps are not inaccurate; streams do actually exist in the places where they are laid down on the maps; but for the greater part of every year no more is to be seen than the beds or courses, in which, during the season of floods, or after long-continued rains, absolute torrents of water flow, but which will within the short space of a month again become a string of deep pools. Were it not for this peculiar provision of nature, the country for the greater part of the year would be without water, and consequently, uninhabitable."

During the long-continued drouths to which the country is so subject, the vegetation is also liable to great injury from hot blighting winds, which are thus spoken of:

"The prevailing westerly winds sweep with force over the whole country, blighting all they touch. The effect of these hot winds is remarkable, for they will in a few hours entirely destroy the crops, by extracting all the moisture from the grain, even after it is formed and almost ready for harvest; and the only portion that is left, is that which has been sheltered by trees, hedges or fences. They thus destroy the prospects of the husbandman when his crops are ready for the sickle."

WOOL-GROWING

We have received through the *Washington County Post*, an article on this subject, written by Wm. McKie, Esq., of Salem, N. Y. It appears that some person had desired Mr. McK.'s opinion as to the most advisable course for the wool-growers of this region to pursue that they may be enabled to compete successfully with the increase of the wool-growing interest of the west. To this Mr. McKie replies that he thinks it is as yet undecided whether *fine* wool can be grown extensively in the west; but he has no doubt that the "coarser and more middling grades can be grown successfully, and at prices that would be ruinous to the wool-grower of the north." He however recommends "a medium course" for the northern farmers, in regard to the quality of their wool. He says—"However favorably I may be impressed with regard to the Saxons, I would not recommend the pure bloods to any but the skilful. I would recommend the cross Saxony, or in other words, the pure Merino crossed by the Saxon. An equal cross is desirable."

He speaks highly of the Saxon flock of Daniel Rogers, in Rensselaer county, derived from the importation of Mr. Grove, as standing in very high repute, and from which he could advise a selection of breeding stock. He speaks highly also of "the Campbell flock," in Jackson, Washington county, which he says can be recommended in the highest terms. He states the blood as pure Merino crossed by pure Saxon. That the wool is very soft, fine, and silky, averaging three pounds to the fleece; and is in high estimation with the manufacturers for its felting properties, &c. He observes that—"light fleeces and fine wool, are generally considered synonymous;" but this he shows is a mistake, and that we should regard quantity as well as quality, which there is no difficulty in combining. A great reason with Mr. McKie for encouraging the growth of fine wool, is the supposed probability that we may have to resort to exportation for a market, and that in this exigency fine wools could alone remunerate the grower—the coarser and middling grades being produced by other countries—at a less rate than can be done even from the prairies of the west.

In regard to preparing wool for market, Mr. McKie advises the greatest care in washing and cleansing. He says—"The practice of dipping the flock, and then huddling them together in a yard, for some two hours previous to washing, is a mode that all wool growers of distinction would be likely to practice, when made acquainted with the beneficial results. Great care should be taken to avoid dusty roads going up from the washing, and in providing clean pastures for the flocks, between that and the clipping." He discountenances the practice of letting sheep run two or three weeks after washing before they are sheared, "for the oil to come out." From three to six days, he thinks, (and reasonably too,) is long enough for all practical purposes. He states that some wool-growers in putting up their fleeces "are in the abominable practice of *carefully concealing* from three to four ounces of the most filthy unwashed dags in the centre of each fleece." He recommends that the fleeces be prepared in "the best possible manner, which will enable one to reach the highest price, besides giving the satisfaction of having done *right*."

NEW-YORK STATE AG. SOCIETY.

The monthly meeting of the Executive Committee for June, was held at the Society's Room, Albany, on the 12th—Geo. Vail, Esq. in the chair.

Mr. Tucker reported a list of Questions to be answered by the applicants for Premiums on Farms, which were approved, and ordered to be issued in a circular. In addition to the Premiums of $50—$30, and $20, on Farms, it was resolved to give single volumes or sets of the Society's Transactions, to all who furnish answers to the questions, according to the value of the reports thus furnished.

A letter was read from the President, recommending that the next meeting of the Executive Committe be held at Utica, whereupon it was

Resolved, That the next regular meeting of the Executive Committee be held at Bagg's Hotel in Utica, on Thursday, the 10th of July, at 10 o'clock A. M.; and that the Committees to award Premiums at the State Fair be appointed at that time.

A letter was read from Mr. Wm. Wandall, of Sing Sing, on the subject of destroying the wild onion, and asking the Society's advice as to the best way of making it public. The Committee advised its communication through the agricultural papers.

☞ All applicants for Premiums on Farms, can obtain Circulars, containing the regulations and questions to be answered, on application to Luther Tucker, Rec. Sec'y, Albany, or to any of the officers of the Society in different parts of the state.

ASPARAGUS.

Mr. Wightman Chapman, of Middlebury, Vt., raised the finest Asparagus we ever tasted. Noticing its superiority, we inquired how it was grown. Mr. C. said it was raised by what he called the French mode. Instead of making a deep trench as in the ordinary way, he selected a piece of thick sward in a rich place, made up a good compost of old manure, muck, and loam, and raised a bed to the height of twelve or fifteen inches, into which he set the roots. There is certainly "no mistake" about the extra size and unusual richness of the asparagus which we saw and ate, produced in this way.

Mansfield, Conn., has the honor of manufacturing more silk than any other town in this country. In 1793, 265 lbs. were raised, and in 1830, 3,200 lbs.—most of which was manufactured by hand. Since 1830, less has been grown, but the manufacture of foreign silk is carried on to a considerable extent in factories. There are eight factories—most for sewings and twist—the others for cords, tassels, &c.

FOREIGN INTELLIGENCE.

We have our regular files of foreign papers to June 2d. They speak in positive terms of the favorable appearance of the English wheat crop. The Mark-Lane Express says—"We may safely venture to state that a finer prospect for a crop never presented itself within the memory of the oldest man living." Cold north-easterly winds had prevailed considerably through May, yet from frequent showers, the supply of grass had become abundant, and but little doubt was entertained of a heavy hay crop. The appearance of the barley and oats, including beans and peas, it is said was never better; though vegetation in general is rather more backward than usual. The prices of bread-stuffs are still low, but are a little improving. The epidemic among cattle, which it was thought at one time had subsided, has broken out afresh in some districts, and great losses have been sustained. The importation to England of foreign live stock increases, much to the dissatisfaction of British farmers. During May, no less than 900 cattle, and 200 sheep were imported from Holland to London and the various outports, being as is stated, the largest number received in one month since the tariff laws were passed. The number of oxen and cows imported at the various English ports, from the continent during the year ending with May, was 2,241 and of sheep 1,063. Accounts from Scotland and Ireland, are highly favorable for the grain-crops.

ROYAL AGRICULTURAL SOCIETY.—The Half-years meeting of this society was held in London on the 22d of May. Lord Portman was elected President for the ensuing year. This society is in prosperous circumstances—its number of members is 6,933. Its present amount of invested capital is £8,200. The next Annual Show will be held a Shrewsbury, the inhabitants of which city have contributed £1000 towards defraying the expenses. Principal day of the show July 17th. At the late meeting, Mr. Colman presented to the council of the society, a specimen of New-Jersey marl. The council referred the specimens and Mr. Colman's communication on the subject to Mr. Pusey and Dr. Buckland.

IMPROVED SHEEP.—We have more than once mentioned a variety of sheep, a cross of the Cotswold and Down, bred by John Twynham, Hampshire, England, which have attracted much notice. From a late account of the "Stockbridge Cattle-Show," we perceive that the reputation of Mr. Twynham's sheep is increasing,—he having carried two prizes at this show, for the best bucks of any breed or cross.

The export of wool from New South Wales in 1815 was 32,971 lbs.; in 1835 it was 3,863,227 lbs.; and since then the quantity has increased fifteen fold.

The German papers state that M. Liebig, has discovered a mineral substance, which, when combined with guano, will produce one of the most fertilizing manures known. It is added, that a company, with a capital of 120,000*l* sterling, composed for the most part of leading English capitalists, was formed for the purpose of carrying on, upon a large scale, the manufacture of the new compound.

EGGS PICKLED.—The farmers' dames in some parts of Hampshire, in their notable endeavors to turn everything to good account, have acquired much fame for pickling eggs, which, while they constitute a somewhat novel feature in the catalogue of condiments generally, are at the same time particularly relishing. When eggs are plentiful, they take from four to six dozen of such as are newly laid, and cause them to be boiled hard; then, divesting them of the shells, they place them in large mouthed earthen jars, and pour upon them scalding vinegar, well seasoned with whole pepper, allspice, ginger, and a few cloves of garlic. When the pickle is cold, the jars are stopped down quite close, and the former will be fit for use in the course of a month afterwards. The eggs thus treated are excellent, and are held in high esteem by all the farm-house epicures in that part of England.

ADVANTAGES OF DRAINING.—Robert Ferguson, of Muirhouselaw, entered upon a lease of 21 years: the farm a cold wet soil; and though of considerable extent, it seldom produced more than 20 or 25 small stacks of grain, and other produce in proportion. During the first three years of the lease, many miles of drains were made and filled with small broken stones. The expense of opening the drains was borne by the proprietor of the land; and the expense of quarrying the stone, breaking, and filling the drains, was borne by the spirited tenant. The result is, the stack yard, instead of being only in part filled with a scanty produce as formerly, is now quite insufficient to contain the crop, which consists of 75 or 80 large stacks of grain, and a corresponding supply of hay, turneps, and other produce.

The celebrated Short-horned Bulls "Sir Thomas Fairfax," calved in April 1837, and the "Earl of Durham," calved in 1841, are dead.

THE NEW POSTAGE LAW.

The new law in relation to postage, goes into effect on the first of this month. The only change in the law, which will affect "THE CULTIVATOR," is that which provides that all newspapers may be sent *free* to all post-offices within 30 miles of the place of publication. The postage on "The Cultivator," will therefore hereafter be as follows:

1. To all offices within 30 miles of Albany—*free*.
2. To all post-offices in the State, or if out of the State, within 100 miles of Albany—1 cent.
3. For any greater distance than 100 miles, if out of the State—1½ cent.

LETTER POSTAGE.—In relation to the postage on letters, the new law makes very important changes, viz:

1. The *franking privilege* of Postmasters, by which publishers of periodicals have heretofore been so much benefitted, is abolished.
2. All letters are hereafter to be charged by *weight*, instead of by the number of pieces they may contain.
3. There is to be but two rates of postage for distance, all letters of *half an ounce* weight, or less, to be charged *five* cents for any distance less than 300 miles, and *ten* cents, for any distance over 300 miles—for every additional half ounce, these rates are to be doubled.

PAMPHLETS and Magazines are hereafter to be charged by weight, the postage being for one ounce, 2½ cents, no matter what the distance, and 1 cent for each additional ounce.

CIRCULARS, Handbills, &c. of no larger size than a sheet of common writing paper, two cents.

TRANSMISSION OF MONEY FOR NEWSPAPERS.—The following important regulation has been issued by the Postmaster General:

Money may be left with a postmaster, in no instance exceeding ten dollars, for the purpose of being paid to distant publishers, if said publishers shall so desire, for any newspaper or pamphlet, deliverable from his office. The postmaster may retain one per cent. and give his receipt for the balance. He is immediately to report the payment, with the names of the parties, to the postmaster, through whom said amount is to be paid to the publisher, and to charge himself upon his "general account with the United States," with the amount received, deducting the one per cent. under the head of "moneys received for subscriptions;" stating the name of the payor, the name of the payee, office where payable, amount, and time when received, and shall make a full and faithful return to the General Post Office of all such cases at the end of each quarter. When presented, the postmaster at the office where payable, is to pay the amount in said receipt, deducting one per cent., which receipt, after being endorsed by the publisher, he will forward as his voucher of payment. He will enter said amount to his credit on his "general account with the United States," under the head of "moneys paid for subscriptions," giving the particulars above stated, and render to the General Post Office a full and faithful account of the same at the end of each month.

Thus, if we understand it aright, a person wishing to remit to us $10, for the Cultivator, may pay it with 10 cents fees, to the postmaster, and take his receipt for the money, which receipt he must forward to us, on the presentation of which to the postmaster here, we shall get the $10, by paying the 10 cents to which the postmaster here is entitled as his commission.

PAYING POSTAGE.—Notwithstanding the great reduction of postage, it is still important that our friends should remember that all business letters should be POST-PAID. To each individual who writes us, this will be a trifling matter; but to those who receive from 25 to 75 letters a day, as we frequently do, the tax would be onerous indeed, if we have the postage to pay.

SALE OF MR. PRENTICE'S SHORT-HORNS.

Agreeably to previous notice, the sale of Mr. E. P. PRENTICE'S herd of improved short-horned cattle took place on the 25th of last month. The day of the sale proved favorable—the occurrence of showers on the day preceding having produced a delightful purity of air, and an increased greenness and freshness of vegetation, which seemed to invest MOUNT HOPE with more, even, than its usual attractions.

A numerous and highly respectable company from this and several other States, assembled early in the day, and after spending several hours in the examination of stock, and having partaken of refreshments, which were served in a beautiful grove, the sale commenced. It was conducted in a very spirited manner by L. F. Allen, Esq., assisted by Mr. Jones as auctioneer. The cattle were in fine condition, and passed rapidly under the hammer. Forty-one animals were sold at prices varying from $25 to $225, and averaging $112.75 per head. The prices, in general, may be considered low, when the high cost of the original stock and the acknowledged excellence of the herd offered, are considered; yet it should be remembered that the sale was positive—that there was no underbidding, or buying in.

COWS.

Flora—8 years old, J. B. Nott, Guilderland,	$215 00
Moss Rose—8 years old, J. W. Wheeler, Hyde Park,	140 00
Catharine—6 years old, M. Bates, New-York,	105 00
Snow Ball—11 years old, E. H. Smith, Smithtown, L. I.,	110 00
Melissa—8 years old, W. S. Packer, Brooklyn,	120 00
Cora—4 years old, Dr Jas. McNaughton, Albany,	125 00
Daisy—7 years old, do do do	105 00
Diana—6 years old, J. W. Bishop Berkshire co. Mass.,	155 00
Charlotte—5 years old, do do	190 00
Ada—4 years old, R. H. Green, Winslow, Maine,	170 00
Appolonia—10 years old, J. P. Brayton, Bethlehem,	160 00
Louisa—5 years old, R. H. Green, Winslow, Maine,	150 00
Splendor—11 years old, W. S. Packer, Brooklyn,	190 00
Jenny—4 years old, Edward H. Smith,	105 00
Aurora—10 years old, J. B. Nott, Guilderland,	145 00
Miss Smith—8 years old, P. W. Tuthill,	80 00

HEIFERS AND HEIFER CALVES.

Caty—11 months old, W. S. Packer, Brooklyn,	$100 00
Comely—4 months old, Wm. Kelly, Rhinebeck,	70 00
Nun—3 years old, do do	110 00
Meg—1 year old, Wm. Kelly, Rhinebeck,	65 00
Nell—3 years old, M. Bates, New-York,	225 00
Betty—6 months old, Wm. Kelly, Rhinebeck,	55 00
Rover—1 year old, V. P. Douw, Albany.	70 00
Calf, 2 weeks old, J. H. Prentice, Brooklyn,	50 00
Calf, 2 months old, W. S Packer,	45 00
Burley—1 year old, V. P. Douw, Albany,	80 00
Peggy—3 years old, J P. Brayton, Bethlehem,	200 00
Peggy, 2d—4 months old, V. P. Douw, Albany,	110 00
Ramble—1 year old, W. S. Packer, Brooklyn,	75 00
Jilt—10 months old, Wm. Kelly, Rhinebeck,	60 00
Calf, 1 month old, J. P. Walker,	77 50

BULLS AND BULL CALVES.

Calf, 1 month old, W. S. Packer, Brooklyn,	$40 00
Blaize—4 months old, R. H. Green, Winslow, Maine,	55 00
Tyro—5 months old, J. B. Nott, Guilderland,	55 00
Tecumseh—1 year old, W. S. Packer, Brooklyn,	200 00
Calf, 2 weeks old, J P. Walker,	30 00
Calf 1 month old, W. Kelly,	75 00
Duke—6 months old, Gen. Kimball, Newfane, Vermont,	200 00
Calf, 3 days old, J. P. Walker,	25 00
Timour—11 months old, M. J. Hayes, Montreal,	80 00
Fairfax—5 years old, W. S. Packer,	205 00
	$4.622 50
Forty-one animals, averaging	$112 75

Of the other nine animals on the catalogue, four, (Matilda, Sally, Judy and Esterville,) were reserved by Mr. Prentice, agreeably to the terms of his advertisement—one, (Caroline,) was withdrawn for want of a bid—one cow, (Dutchess,) and a calf, died—another, (Dora,) was sick, and O'Connell, by a vote of the company, unsolicited by Mr. P., was withdrawn.

WHENCE DO ANIMALS DERIVE THEIR FAT.

The theory has lately been put forth by some European chemists, that such plants only as contain oil, or the elements of fat, can fatten animals. A late number of the Quarterly Journal of Agriculture, contains an article, translated from the French, on the "Fatting of Cattle, and the Formation of Milk, by M. M. Dumas, Boussingault, and Payen." In this this article, the theory above-mentioned, is strongly and elaborately defended. It is obvious that the subject involves a matter of great practical importance, viz: that of selecting the proper plants for the fattening of animals and the production of butter. The researches of the chemist and philosopher, may be of service in deciding this point, though it appears to us that in the adoption of new theories, we should be careful that they are not opposed to well-established facts. A sensible writer has well remarked, that "perhaps nothing has done so much to discredit, amongst the mass of farmers the probability of profitably making the science of chemistry available for the purposes of agriculture, as repeated assertions made by chemists, either at variance with, or only partially founded on facts." It strikes us that the article to which we allude is in some particulars obnoxious to this charge. In advocating the theory that animals have not been known to fatten on food devoid of fat, it is stated that hogs have not been known to fatten on potatoes! At the conclusion of the article, the writer gives a summary of the conclusions arrived at, among which it is laid down, "that potatoes, mangel wurtzel, and carrots, only fatten so far as they are joined with products containing fat substance, such as straw, the seeds of cereal plants, bean, or oil-cake." It will hardly be necessary to refer to particular cases to show that this conclusion is at variance with facts—the experience of many a Yankee, and we doubt not that of many an Irishman, contradicts it. Are there not to be found many persons who have fattened animals on potatoes or carrots? We have often fattened animals on potatoes, with no additional food than such a quantity of straw or hay as was was necessary to give proper distention to the bowels, and assist the animal to "raise the cud," and never saw better beef than from cattle thus fed. In some of the cases we have in mind, the whole quantity of food given, besides the potatoes, would not have been sufficient to sustain the animal in ordinary condition. So in regard to hogs, we have known many cases where the accumulation of fat could be attributed to nothing else but potatoes. We cannot cite cases where potatoes were the *only* food given, but the quantity of other kinds would never have fattened them.

The experiment, to which these French chemists refer in support of their theory, if well conducted in other respects, must, in our opinion, have been made with an inferior breed of hogs.

In a note attached to the article upon which we have made the above comments, is a remark in relation to the effect of carrots when given to milch cows, to which we wish to call the attention of our readers. It is said "This sort of food [carrots] is reserved for those cows which are not so good milkers, and whose milk it is wished *still farther to impoverish*, in order that it may serve as a substitute for woman's milk." Now we would inquire whether anything like the effect here indicated is known to follow the use of carrots for cows in this country? So far as we are acquainted, the effect of carrots is believed to be to make the milk *richer* instead of poorer.

PRICES OF AGRICULTURAL PRODUCTS.

New York, June 24, 1845.

COTTON.—The exports of Cotton, from 1st to 17th of June, were 16,986 bales. Prices, 5½*a*8½.

BUTTER.—Orange County, in tubs or pails, 15*a*18—New Western dairy, 11*a*18.

CHEESE—5½*a*7.

FLOUR—Best Genesee, $4.75—Ohio and Michigan, $4.50*a*$4.62½.

GRAIN—Wheat, nothing doing—Rye, 66*a*67—Corn, 45*a*48c.

HEMP—Dew rotted, per ton, $95—Dressed, $145.

HOPS—per lb. 13*a*14 cents.

HAMS—Pickled, per lb. 5*a*7 cents.

BEEF—Country Mess, $9 bbl.

LARD—per lb. 7½*a*8.

PORK—Per bbl. mess $12.50*a*$13—prime, $9.37*a*$9.50.

TOBACCO—Kentucky, per lb. 3 cents—Connecticut seed leaf, 8*a*10.

WOOL.—BOSTON, being the great wool-market, we give the prices of Wool in that city, as reported in the New-England Farmer of June 18th:

Prime or Saxony fleeces, washed per lb.	$0.40*a*0.43
American full blood fleeces,	37*a*0.38
" three-fourths blood fleeces,	35*a*0.36
" half blood do	32*a*0.33
" one-fourth blood and common,	30*a*0.31

BOMMER'S MANURE METHOD.

Interesting communication from Mr. Bommer, relative to his well known method for making manure.

TO THE AGRICULTURAL PUBLIC.

PRICE OF THE METHOD GREATLY REDUCED.—Until now I have maintained the prices fixed upon by myself and Abbott & Co.; prices which varied from six to twenty-five dollars, according to the size of the farms; and this I was obliged to do, because in accordance with our agreement, I was not at liberty to alter them. It was principally to gain this end that I bought out Messrs. Abbott & Co.

To render my work really popular, I have fixed its price so low, that each member of the whole agricultural community can purchase it. Henceforth it will be sold at the uniform price of FIVE DOLLARS for every farm in the Union—that is,

ONE RIGHT WITH ONE COPY OF THE METHOD FOR ANY ONE FARM

FIVE DOLLARS.

PRICE FOR WHOLESALE.—Agents, farmer clubs, bookstores, seedstores, agricultural repositories, offices of agricultural papers; in one word, such persons as will take a certain number of "Methods" at a time, either to be divided among their neighbors who have clubbed together, or for single sales at the price of five dollars, will have the "methods" for the following prices, viz.

For 5 Rights with 5 Methods or books, ... $20
" 12 " 12 " 40
" 30 or more " 30 or more " 40 per cent.

(Making only $3 per piece.)

All orders must be accompanied by the amount in *cash*, and directed to my office. 113 Greenwich-st. New-York city, or to my empowered Agents; in which case the "Methods" will be sent immediately.

Each package of "Methods" will contain a good number of Prospectuses or handbills, containing, 1st. A Synopsis of the matter contained in the "Method;" 2d. Documents and Reports from several authorities of the United States, approving the "Method" and acknowledging its practicability; 3d. Certificates from respectable, scientific and practical men, attesting the results which have been obtained from its application; 4th. Editorial articles, expressing the opionion of the press.

A WORD TO ENTERPRISING MEN.

Having succeeded in making known the advantages and the practical utility of my method to competent and disinterested men, whose characters are sufficiently known to the public to place their testimony beyond doubt; my "method" being patronized by the most eminent men of this country, Messrs Martin Van Buren, Gov. J. H. Hammond, Gen. Wade Hampton, Gen. J. L. Means, Col. Singleton, Col. Hugh Lawson, Hon. J. R. Poinsett, W. B. Seabrook, Andrew Stevenson and others, who have adopted it; several thousands of the method having already been spread throughout the Union, the greater part of purchasers being eminent agriculturists; and all subscribers being satisfied with the work, my end has been attained, my task stops here; it is now a mere business matter, ready to receive the developments of which it is susceptible.

For these reasons, and desiring to employ my time in new researches and experiments, especially upon the subject of *transmutation* of dead into living vegetables, a highly important subject in agriculture, already hinted at in my work, but which is still in a problematical state, not reposing upon any solid basis; and to enable me also, in accordance with my former promises, to impart the results of those experiments to the subscribers of my method, I have resolved to cede my patent and method, either by Town, County, or by State, to single persons or to companies, on the most reasonable terms, the price of which will be fixed according to the agricultural importance of the Towns, Counties, or States.

Every purchaser of the patent for a Town, County, or State, will be supplied with such number of copies of the method, gratis, as may be agreed on.

NOTE.—The patent right *for* the State of New-York, (Long Island and Staten Island excepted;) *for* the ten eastern counties of New Jersey; *for* Frederick county, Maryland; and *for* about 40 towns in New England, have been ceded by me to several persons and companies. For all other states and territories in the Union, I can now dispose of the patent and method.

Herein I present a new branch of industry to enterprising, intelligent, and active men. It would be superfluous to enlarge upon its advantages, for it will be seen at a glance, by perusing documents, mentioned in the prospectuses, that my method enjoys a high reputation in the Union, and that this enterprise is in its nature as honorable as it is lucrative.

IMPORTANT NOTICE.

Having now given the best plan, taken the best measures for the prompt introduction of my "method" into agriculture, and done every thing, on my part, to enable every one to procure it at small expense, I notify those who should feel tempted to use this system, without being furnished with a right and a "method," that they will not only expose themselves to be prosecuted for an infringement of the patent, but lose their time and their money in vain trials, of which the result will be, if not totally unprofitable, at least very incomplete. Therefore, do not deceive yourselves, but be assured *of this truth*, that my large method is, to this day, the sole work in existence which contains the improved and complete system, and in which its application is rendered easy and profitable in all its branches. In a word, its possession is the main condition of your success; first, because the whole work constitutes one chain of facts and principles, which are linked together and sustain each other, and form an inseparable whole which is indispensable to the proper comprehension of the system, enabling you to apply it in a really profitable manner. Secondly, because it contains, besides the process in question, a great number of other instructions not less useful, the knowledge of which will aid and guide you, so as to put you in a way to derive from the system the greatest advantages and profits.

For these reasons, those who have formerly bought my small method, can have the large one *gratis*, by an application at my office, (postage paid,) or to my agents.

Those among you, who have faithfully tested the method and obtained satisfactory results, are respectfully requested to communicate with me. To those who have not tested its advantages, I recommend, by all means, carefully to conform to the instructions contained in the large method, in which case their success will be infallible.

STATEMENTS AND EXPLANATIONS CONCERNING THE "METHOD," AND THE RIGHTS ATTACHED TO IT.

When I first introduced this method into American agriculture, I judged it prudent, for many reasons, to publish at first, but a part of it; enough, however, to enable the intelligent farmer to succeed in the experiment. Before encountering the expense required to publish *in full* the fruits of my labors, I was anxious to ascertain if this system would be well received and properly appreciated by the agricultural public. My expectations were not disappointed, that trial having been crowned with entire success. Thus encouraged, it became my duty to persevere, and to give you the result of all my researches and experiments. This you will find in my new work, which I can say with confidence, is the key with which you can, by the exercise of a little intelligence and industry, double the product of your farms; for, in this work, the system is so much improved, its application rendered so easy, the whole so clearly explained, and so fully detailed, that if you conform to its prescriptions and instructions with scrupulous exactness, *success is certain*.

In the main, my method is based upon that known for some time in France as Jauffret's system; that is to say, I use the same materials; for, in my researches and experiments it became my duty to consult not only the small French pamphlet of Jauffret, but all other writings which have appeared upon the subject of agriculture, and especially of manure, in order to extract from them whatever, by experiment, should prove to be good, valuable, and useful to the object I had in view. The merit of this new system does not consist either in the materials, or in their combination. These materials have been known for ages as possessing fertilizing qualities, and every person at all acquainted with chemistry, knows that in mixing alkalis with animal matter, a mordant can be obtained which will produce fermentation in a heap of vegetables. This then, is not new; it is the numerous improvements and amelioriations connected with the application of these materials which give real importance to this new system. Therein lies the real progress of the art in the preparation and the application of manures, and therein consists the merit of the new edition of the *method*. True, Jauffret also undertook the application of this mixture, but he stopped half way. His process, such as described in his pamphlet, cannot be used with profit and success, and that for three cogent reasons. The first is: the meagre and incomplete instructions he gives to the operator upon the application of the system; the second, because the hand labor is too painful and expensive; and the third, because he did not discover, and consequently could not tell how to employ the air as a second agent of fermentation—a very important point in the operation, because without this aid, it is impossible to attain that degree of heat which is necessary perfectly to reduce vegetable matter into manure in a short time. Therein he failed, and therefore it remained for others to accomplish the work he had left incomplete. But although I have perhaps gone much farther than all others who have hitherto devoted their attention to this subject, I do not pretend to have closed the door to improvement by my method. The question of manure is so extensive that it embraces nearly the whole agricultural art, and will in due time advance to fullness by relying upon science and practice. In the meanwhile the great step is made, the fundamental bases are established, and the system, as explained in my new work, has been so well matured by my experiments, that I can affirm without fear of misleading any one, that any farmer, why will undertake to operate on my plan, will succeed, and I assuro him that he will considerably augment the products of his farm be following my economical process in the preparation and application of his manure. Here the word "*economical*" is seriously intended. The system taken altogether is essentially economical; for, except a small quantity of lime, all the ingredients which enter into the composition of the caustic lye, (which, with the air, form the two agents of fermentation,) are found upon all farms, and cost nothing but the labor of gathering them.

Concerning the patent attached to my method, it is evident that it could only be granted for the improvement connected with the application of materials already known. You should know then, that the patented process is of the greatest advantage to the farmer, being the most economical, and the most easily reduced into practice. It is also the process now in use in every section of the Union. You should also understand, that in the patent this process is only described in general terms, and that, isolated from the "method," it is not likely to be of any value. To apply it with success, it is necessary to have my work for a guide

According to an agreement between myself and my agents, Messrs. Baer and Gouliart, the patent was issued under their name, and a part of it, comprising the right for the northern and eastern States, was immediately ceded to me by them, which transfer is duly recorded in the patent office, in Liber M. page 280 of transfers of patent rights. Then by a second transfer, made to me the 6th Nov. 1844, by Abbott, Baer and Gouliart, known as the firm Abbott & Co., the remaining part, comprising the right in the southern and western States, has also been ceded to me, which transfer is also recorded in the patent office, in Liber S. page 373; so that by virtue of these two acts, the patent, issued under the above names, now belongs entirely to me.

With regard to the "method" itself, that is to say, the book which contains the directions and instructions indispensible to the farmer

who wishes to apply the process; in a word, which contains the system complete in all its details, the property and the copyright appertain to myself exclusively, according to two legal acts entered in the clerk's office of the southern district of New York Thus, these two rights, although distinct, are inseparable; that is, the patent cannot be profitable to any one without the method.

I was compelled to give these explanations and to make these statements, because all these matters have been agitated by the press as well as by private correspondence; and also, that for the future, each one may know to whom to apply in regard to this patent and method.

You should not lose sight of the fact that all the copies of the method are *signed and sealed* with my own hand,—a measure I have adopted to prevent imposition and fraud.

A CALL TO THE PRESS.

☞ Editors of agricultural periodicals, and of other papers having at least 400 farmer subscribers, are invited to publish the above communication; for which entire insertion, and perhaps some other articles to be sent by me afterwards, I offer every one three copies of the method; to be delivered to him immediately after the receipt of his paper containing the whole article. Such editors of agricultural papers of which I am not yet a subscriber, will please to send me their paper, and consider me as such GEO. BOMMER.

Office 113 Greenwich-st., New-York city.

July 1, 1845.—1t*

HOVEY'S STRAW CUTTER.

THIS machine has received the highest premiums of the Agricultural Societies of Massachusetts and New-York, and has given the most entire satisfaction wherever known. Some improvements which it has lately undergone, it is believed, render it as perfect an implement for its destined purpose, as can be desired. There are six different sizes—the prices of which, range from $12 to $35. The two largest sizes are suited to the application of horse-power, &c For sale in this city. Inquire at the office of "THE CULTIVATOR." July 1—tf.

VIRGINIA FARMS FOR SALE.

I HAVE for sale several good farms, being portions of the estate called Oak Hill, in Loudon county, Virginia, late the residence of President Monroe. It is about 30 miles from Washington, Alexandria and Georgetown—in a most healthy region, well watered and peculiarly calculated for raising stock of all kinds. To industrious and enterprising applicants, very liberal terms of payment will be given. S. L. GOUVERNEUR.

Washington, July 1, 1845—july 1—5t.

FARM FOR SALE.

IT consists of two lots, situated on opposite sides of the Albany and Schenectady turnpike, four miles from Albany. The lot on the north of the road, comprises forty, and that on the south, sixty acres. Both are enclosed by a good fence of boards with chestnut posts, erected a little more than a year ago. The lot on the south side has a small house, a stable with shed, and a good yard for manure, or stock. It is also provided with a well of excellent water. There are permanent streams of water on both lots. The stream called the Patroon's brook runs across the whole width of the south lot. With the exception of about a third of an acre on the north lot, both have been entirely cleared, drained where necessary, thoroughly plowed, seeded last year with clover and grasses, and will yield this season nearly or quite an average of two tons of hay to the acre. The two lots are suitable either for one farm or two farms, but will be sold together or separately, to suit purchasers. The natural position, as well as the soil of both lots is good, and cannot fail to give satisfaction. Every thing considered, a more desirable situation could scarcely be found in this vicinity.

For particulars, inquire at this office, or of JOHN McCARDELL, corner of Nassau and Pine-streets, New-York

July 1—3t.

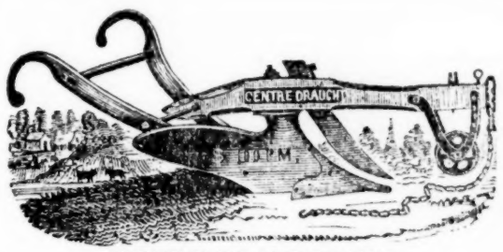
DR. VAN BUREN'S RHEUMATIC EMBROCATION.

RHEUMATISM ANNIHILATED.

THE proprietor of the Rheumatic Embrocation, comes before the public with increased confidence in the healing virtues of his remedy; for since he first offered it to the public, it has been tried in the worst possible, and most aggravated cases, over which it has completely triumphed; in some instances, where the patient had been given up by the attending physician as incurable; and in many cases where all the remedies advertised for the cure of rheumatism, had been faithfully used, without the least effect; thus proving itself superior to all other remedies ever offered to the public. The proprietor has received from various parts of the United States, and is receiving almost daily, the most flattering testimony to the curative powers of his Rheumatic Embrocation; and he feels now more justified than ever in asserting, that it is a never failing cure, in all the various forms of Rheumatism, Chronic or Inflammatory, and in all complaints of an analagous character, when faithfully and perseveringly employed. He cannot occupy the necessary space in an advertisement, or he would place before the public, the documentary evidence of the truth of his assertion. But though he cannot do this, he is willing at any time, to show them to all who may call upon him at his principal office, No. 56 Sand-street, Brooklyn, Long Island, N. Y.

Agents solicited from all parts of the United States and the Canadas, and dealt with on favorable terms. All communications must be post-paid. Price $1 per bottle. M. VAN BUREN.

July 1—1t* Sole Proprietor.



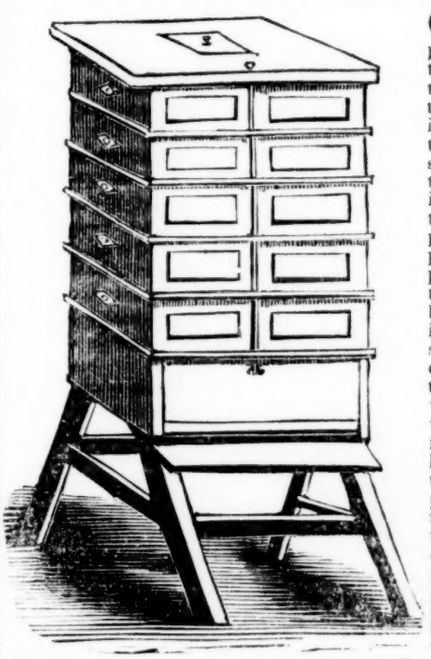
CENTRE DRAFT PLOWS.

D. PROUTY & Co., Nos. 19, 20, & 22, North Market-st. Boston, manufacture and keep for sale, a large assortment of the most improved Implements of Agriculture, including their celebrated CENTRE DRAFT PLOWS, Cultivators, Harrows, Straw-Cutters, Seed Sowers, Vegetable Cutters, Corn-Mills, Ox-Yokes, &c. &c. For the character of their plows, they have only to refer to those who have used them. The demand for them for a few years past, has been great—they having been sold extensively over the country from Maine to Louisiana, and the western States, as well as in the British Provinces; and have not failed to satisfy all purchasers of their great superiority in the qualities of neatness of workmanship, strength, durability, ease of draft and complete execution of the work.

N. B. A few of these plows are for sale in Albany. Inquire at the office of THE CUTTIVATOR.

July 1—tf.

MILHOLLAND & CRANE'S ENDLESS BEE HIVE.



ONE of the greatest improvements of the age. One of the proprietors of this beautiful and ingenious invention, has been for some weeks in this and adjoining counties, introducing an improvement that promises an important change in the culture of the bee. Their hive is both new and simple, and so entirely adapted to the nature and wants of these wonder working insects, that the life and labors of the bees may be perpetuated in the same hive for twenty years, or even more, yielding from 60 to 100 pounds annually, of pure, delicious honey, in clean white comb, entirely deserted of young bees, bee bread, or old filthy comb. By their process of removing the accumulated honey, the bees are unharmed, and kept insensible to their losses, and are apparently stimulated to exertion to fill the hive by additional supplies of room as the bees may require. At the bottom of the hive, they are enabled to build a new set of comb throughout their abode every year, and produce each succeeding brood of young in combs which are new and clean, which is very essential to their increase of numbers, health and general prosperity; by a new and simple mode of colonising, the owner may at pleasure transfer a portion of his bees from full to empty hives, without having them swarm off in the open air, or ringing bells or beating pans, or exposing himself to be stung. In addition to its ornamental appearance, it is highly remunerative, and is so perfectly transparent, that the whole internal operations of the bees may be as minutely observed as the labors of any mechanical or laboring establishment. Thus a satisfactory knowledge may be obtained of a community of insects that have, in all ages and countries been the wonder and admiration of every one, from the philosopher to the untutored savage. The proprietor respectfully invites the inspection of practical bee men and others of taste, to his hive, which he will exhibit a few days at Wm. W. Wolford's hotel, corner of State and Hawk-streets.

Albany, June 19, 1845.—July 1—1t*

DURHAM BULL CALF AND HEIFERS.

THE subscriber will sell a Durham Bull Calf one year old 21st March 1844, a remarkable thrifty animal and good handler; when about 10 months old weighed 720 lbs. He was got by his prize bull Meteor. Also, a yearling and a two year old heifer, one got by Meteor, and one by the imported bull Duke of Wellington. Letters post-paid, will be answered. GEO. VAIL.

Troy, May 1, 1845—2t

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☞ ADVERTISEMENTS inserted in the Cultivator, at $1,00 per 100 words for each insertion.

SITUATION WANTED.

A YOUNG man, lately from England, is desirous of obtaining a situation as manager of a farm. Good recommendations can be given. Inquire at this office. July 1—1t.

MR. DOWNING'S NEW WORK.

WILEY & PUTNAM, 161 Broadway, New-York, have just published "The Fruits and Fruit Trees of America, or, the Culture, Propagation and Management, in the Garden and Orchard, of Fruit Trees generally; with Descriptions of all the Finest Varieties of Fruit, native or foreign, cultivated in the gardens of this country. Illustrated with numerous engravings and outlines of fruit. By A. J. Downing. 1 vol. 12 mo., (and also 8 vo.)"

This is the most complete work ever published on the subject, and will, it is hoped, supply a desideratum long felt by amateurs and cultivators. July 1—1t.

TO FARMERS.

A GOOD farmer who is desirous of going west, may make an arrangement on favorable terms to himself, to come on an excellent and very extensive farm on shares, for a period of years. The farm is in northern Illinois, where it is perfectly healthy. One with a family, will have preference, and making the engagement, will enable him to look around and suit himself to a farm, in buying which, the advertiser will assist. Apply to Messrs. Eddy & Stiles, Dixon, Lee county, Illinois.

July 1, 1845—1t.

FOR SALE.

THE farm of Robert White, Jun., Shrewsbury, N. J., highly improved, and in the immediate vicinity of excellent marl. See N. Y. Journal of Commerce.

July 1—2t*

FARM IN ILLINOIS.

FOR SALE—A good farm, with valuable improvements. The subscriber being about changing his business, will sell a great bargain. Also has in immediate vicinity, 2,000 acres choice land, which he will sell at a discount from government price. Address ISAAC HINCKLEY, P. M., Audubon, Montgomery Co., Illinois.

EXOTIC, NURSERY, AND HORTICULTURAL GARDENS,

Flushing, L. I., near New-York.

THE subscribers having established a Nursery with the above title, with the determination of conducting it in the very *best* manner in all its departments, offer for sale, *at reasonable prices*, a *select* variety of Fruit and Ornamental Trees, Hardy Shrubs, Herbaceous Plants, Grape Vines of all the best kinds, superior Strawberries, Fastolf Raspberry, Gooseberries, &c. Bulbs and Tubers, superb Carnations, Dahlias, &c., and a most extensive and choice collection of Green-House and Stove Plants, embracing every thing *new* and *beautiful* in that department, personally selected in Europe during the past summer, of Roses and Camellias

We have a very choice collection of the former, full 1,000 varieties, and of the latter nearly 300, all in fine order.

Catalogues of the above will be sent gratis to all applicants, *post-paid*, and every order promptly executed. From unknown correspondents, a remittance, draft, or satisfactory reference expected.

May 1, 1845—m. & jul. VALK & Co.

NORTH DEVON CALVES.

THE subscriber offers for sale 4 full blood North Devon Bulls and 2 heifer calves.

Two of the Bulls 5 and 6 months old, price each,..... $25
" " 11 " " 30
One of the Heifers, 12 months old, price, ... 30
" " 18 " " 40

They are beautiful animals, in fine condition, and of a suitable age to ship. Address JOHN P. E STANLEY,
46 South Calvert corner of Lombard-street.

Baltimore, Maryland, June 1—2t.

SEED STORE AND AGRICULTURAL WARE-HOUSE.

OUR Spring supply of seeds is now ready, and we shall be happy to receive orders for Field or Garden Seeds, of every description, Black Sea, Italian and Siberian Spring Wheat, Barley, Peas, Clover Seed, Timothy Seed, Seed Corn, Shaker and other Garden seeds, &c. Also, a full assortment of farming tools selected from the best manufacturers in the country. Hoes, Scythes, Forks, &c. cheap by the dozen. E. COMSTOCK.

Rome, Oneida county, March 1, 1845.

AURORA AGRICULTURAL INSTITUTE.

THIS Institution, recently opened, is located on a farm of over 200 acres, lying in, and directly adjoining the village of Aurora, on the east bank of Cayuga lake, in Cayuga county, New-York, 16 miles from Auburn, by stage, and 12 miles south from Cayuga Bridge and the Auburn and Rochester Railroad, by steamboat direct, in summer.

Its design is to afford every facility for young men to make themselves thoroughly acquainted with the principles of Agricultural science, and their judicious application to practical husbandry; and particularly to afford young men from our large towns, the most favorable advantages for preparing themselves for Agricultural pursuits.

Terms $150 a year, payable quarterly in advance. No person under fourteen years of age will, as a general rule, be received.

Pupils will be received at any time, and the course of instruction continued through the year without vacations, but permission of absence will be granted if requested.

Applications may be made to B. R. McIlvaine, 44 Great Jones st. New-York, to Rev. W. Roosevelt, 413 Rroome-st., and Hon. B. R. Wood, or the Editor of the Cultivator, Albany.

CHARLES C. YOUNG, A. M., Proprietor and Principal.
Alexander Thompson, A. M., M. D., Lecturer on Botany, Geology, Agricultural Chemistry, &c.
David Thomas, Visitor and Adviser.

May 1, 1845—3t.

ROME PLOW FACTORY.

THE Diamond Plow which received the first premium at the State Fair at Poughkeepsie, as well as at every County Fair where it has been shown, is manufactured by the subscribers in the very best style, and for sale at wholesale or retail. Also, some eight or ten patterns of approved plans, as well as Scrapers, Cultivators, Cradles, Mott's Agricultural Furnaces, &c. Orders from abroad promptly filled, aad a liberal discount to dealers.

March 1, 1845. BRAINERD & COMSTOCK.
Rome, Oneida county.

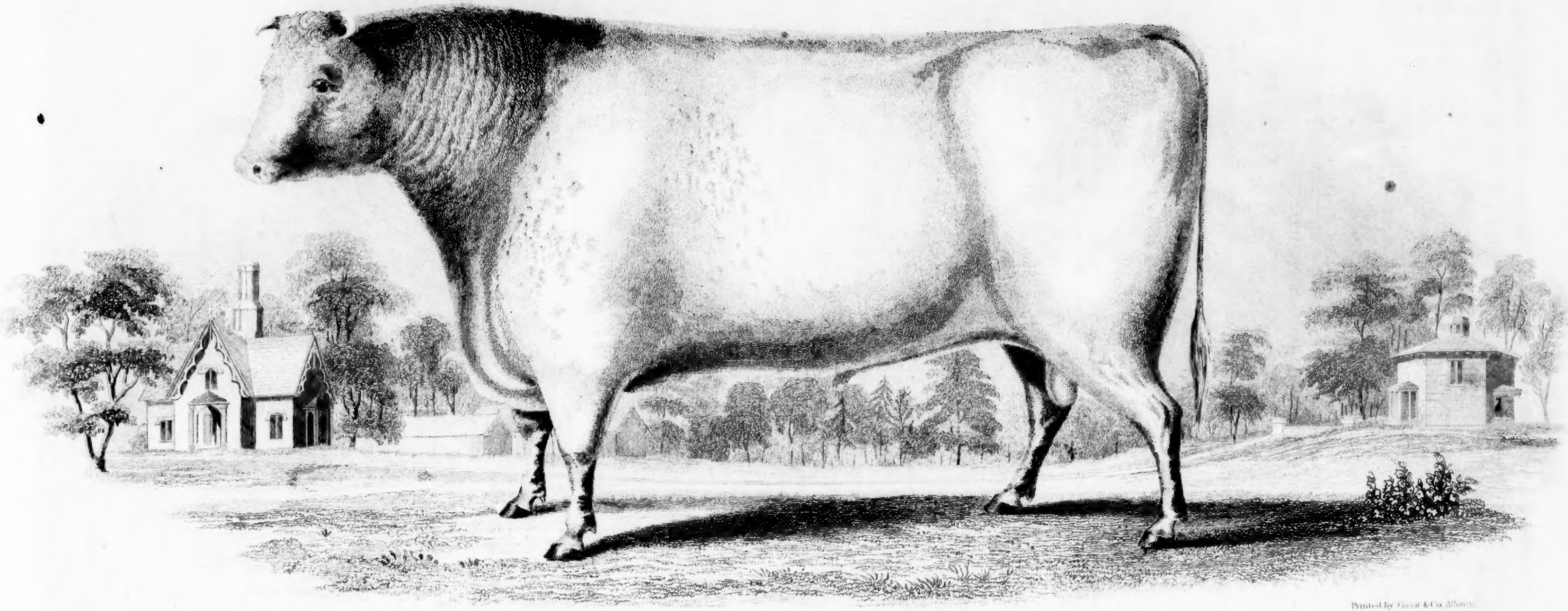
PLOWS.

AT the Syracuse Agricultural Warehouse and Seed Store, can be obtained Delano's celebrated Diamond Plow made by Mr Howard Delano, of Mottville, for the sale of which, we are sole agents for this town. Price, $6 for plain plow, and $10 for the wheel, coulter and clevey. Also, a full assortment of the well known Massachusetts Plow, made by Ruggles, Nourse & Mason of Worcester. 300 bushels seed barley, 300 do. pure Marrowfat Peas, 100 do. Clover seed, 150 do. Timothy, and a general assortment of all the varieties of seed sown by the tillers of the soil; Cultivators, corn plows, Wheel-barrows, Churns, Cheese Tubs, Cheese Cloth, Hoops and Presses, Hoes, Manure, Hay and Barley Forks, Shovels and Spades; and a very great variety of articles appertaining to the interest of the husbandman. Orders promptly executed.

Syracuse, April, 1845.—3t. FOSTER & NOTT.

BOOKS FOR SALE.

AMERICAN Farmer's Encyclopedia, price $4—Skinner's Cattle Doctor, price 50 cents, and a variety of other works, for sale at the office of "The Cultivator."



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PRINCE ALBERT. — (Roan) — 4 yrs. old — Weight 2270 lbs.

The property of R. Bruce Esqr. of Bloomwood, Litchfield Co. Ct. Bred by Mr. Wheeler of Derby, England.

See "Herds and Herd Books" Vol. 2. p. 395.